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REGIONAL RESOURCE STEWARDSHIP COUNCIL MEETING

MARCH 4 & 5, 2010

VOLUME I OF II

LOCATION:

TENNESSEE VALLEY AUTHORITY  
400 WEST SUMMIT HILL DRIVE  
KNOXVILLE, TENNESSEE 37902

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MEMBERS OF THE REGIONAL RESOURCE STEWARDSHIP COUNCIL

\*MR. WILSON TAYLOR (FACILITATOR)

\*MR. TOM LITTLEPAGE (COUNCIL CHAIR)

\*MRS. CAROL DOSS

\*MR. KARL DUDLEY

\*MRS. JEAN KELLEMS ELMORE

7 MR. ZEE ENIX  
8 \*MR. BILL FORSYTH  
9 \*\*MR. JIM FYKE  
10 MR. MICHAEL GOODMAN  
11 \*MR. MARK HOMMICH  
12 \*MRS. RENEE V. HOYOS  
13 MR. LARRY KERNEA  
14 MR. GEORGE KITCHENS  
15 \*MR. W. C. NELSON  
16 SENATOR ARTHUR ORR  
17 MR. WES ROSENBALM  
18 \*DR. KELLY TILLER  
19 \*MR. BILL TITTLE  
20 \*MR. RUSSELL TOWNSEND  
21 \*MR. JOHN WILBANKS  
22 \*\*MRS. DEBORAH K. WOOLLEY

23 \*PRESENT FOR THE MEETING ON 3/4/2010 & 3/5/2010

24 \*\*PRESENT FOR THE MEETING ON 3/5/2010

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1  
2 TENNESSEE VALLEY AUTHORITY DESIGNATED FEDERAL OFFICER

3  
4 MS. ANDA A. RAY, DFO  
5 SENIOR MANAGER, OE&R  
6 TVA ENVIRONMENTAL MANAGER  
7 TENNESSEE VALLEY AUTHORITY  
8 400 WEST SUMMIT HILL DRIVE  
9 KNOXVILLE, TENNESSEE 37902

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1 P R O C E E D I N G S

2 CHAIR MR. TOM LITTLEPAGE: Let's go  
3 ahead and call this meeting to order. Welcome  
4 everybody.

5 Do you want to open up with a welcome  
6 or do you want me to start?

7 DFO ANDA RAY: You can start.

8 CHAIR MR. TOM LITTLEPAGE: I can start  
9 the welcome.

10 DFO ANDA RAY: And then I will go  
11 ahead and roll into it.

12 CHAIR MR. TOM LITTLEPAGE: I do want  
13 to thank everybody for coming. I know there was some  
14 folks that were kind of working around and either are  
15 not here today or will be here tomorrow or have to  
16 leave today and won't be here tomorrow, but we  
17 certainly appreciate the efforts to -- for  
18 everybody's schedule to accommodate coming in here.

19                   We have got a lot of information that  
20 we're going to be presenting today or the staff is  
21 going to be presenting to us today. Hopefully, we  
22 will have a chance to interact into a pretty good  
23 dialogue on this whole process of how the planning  
24 process is going to occur within TVA and what are  
25 some of the opportunities for us to look over -- sort  
1                   of look over their shoulder and provide some input  
2 perspective to that.

3                   I don't know that I have a lot of  
4 administrative stuff. I was asked to announce that  
5 if any of you need to go to the restroom now, you  
6 don't have to fight through the security barrier. If  
7 you go to the left around the sign-in desk you can  
8 kind of weave around. I guess the barrier is new. I  
9 don't know how long the barrier has been in place.

10                  DFO ANDA RAY: Evidently not long  
11 enough.

12                  CHAIR MR. TOM LITTLEPAGE: So there is  
13 still a way to do that. We don't have the security  
14 badges to get through. Don't try to go up in the  
15 elevators, I guess that would create problems.

16                  Other than that, are there any general  
17 questions?

18                  Everybody is ready to go. There's  
19 plenty of information in the notebook. Wilson will  
20 be talking about that. Maybe because it's been  
21 awhile and several folks weren't here at the last  
22 one, let's just quickly go down the list and  
23 introduce yourselves and kind of provide where you're  
24 from or your perspective before we get into the nuts

25 and bolts of the meeting here.

6

1 And I will start. My name is Tom  
2 Littlepage. I'm from the State of Alabama. I work  
3 in the Office of Water Resources. We work on a  
4 number of different issues, including water supply  
5 and technical advice to the water wars legal team  
6 that's been ongoing for several years.

7 DFO ANDA RAY: I'm TVA's Environmental  
8 Executive and the Designated Federal Official for  
9 your FICA group, your Federal Advisory Council Act  
10 Group.

11 MR. BILL FORSYTH: I'm Bill Forsyth.  
12 I represent North Carolina on the Council, but I am  
13 also a Chairman of Murphy Electric Power Board, a TVA  
14 distributor.

15 MRS. JEAN ELMORE: I'm Jean Elmore. I  
16 represent the State of Mississippi.

17 MR. W. C. NELSON: I'm W. C. Nelson.  
18 I represent the State of Georgia. I'm also -- I'm  
19 from Blairsville, Georgia. I'm on the Joint  
20 Development Authority of Towns, Union, and Fannin  
21 County, Georgia.

22 MRS. CAROL DOSS: I am Carol Doss. I  
23 represent Virginia. I'm the Coordinator for the  
24 Upper Tennessee River Roundtable.

25 MR. KARL DUDLEY: Karl Dudley with  
1 Pickwick Electric Cooperative, and I'm a Tennessee  
2 Valley Public Power Association representative.

7

3 MR. JOHN WILBANKS: John Wilbanks.  
4 I'm a parks and recreation interest representative  
5 from -- I'm the Director of Parks & Recreation in

6 Pigeon Forge.

7 DR. KELLY TILLER: I'm Kelly Tiller.

8 I'm the Director of the bioenergy programs for the  
9 University of Tennessee.

10 MR. BILL TITTLE: I'm Bill Tittle and  
11 Chief of Emergency Management in Chattanooga. I  
12 guess I represent the response community and security  
13 community and watch out for flood Waters coming down  
14 through Chattanooga.

15 MR. JIM FYKE: I'm Jim Fyke,  
16 Commissioner of the Tennessee Department of  
17 Environment & Conservation.

18 MR. MARK HOMMRICH: I'm Mark Hommrich,  
19 President of Volunteer Barge in Nashville. I'm  
20 representing navigation interests.

21 MRS. RENEE HOYOS: I'm Renee Hoyos.  
22 I'm the Executive Director of the Tennessee Clean  
23 Water Network.

24 FACILITATOR WILSON TAYLOR: I'm the  
25 facilitator Wilson Taylor, TVA staff. I am going to  
1 cover the agenda real quick. 8

2 DFO ANDA RAY: Please.

3 FACILITATOR WILSON TAYLOR: Good  
4 morning. I just really wanted to go over the agenda.  
5 It's in your packet. I just want to highlight a  
6 couple of things.

7 One is the discussion questions. I  
8 think everybody has a copy of those. So everybody  
9 you hear today and tomorrow is pointing toward these  
10 questions and your giving TVA advice on these  
11 questions. So I just remind you to take a look at

12 that as we go through the day.

13 We have several speakers that are  
14 going to be presenting information. If we could hold  
15 questions or comments, just make notes in your book,  
16 because we want to make sure everybody has time to  
17 get through and also get you on the field trip we  
18 have planned for you.

19 We have a working lunch planned.  
20 Again, there will be additional information provided  
21 at lunchtime. Lunch will be back in the room behind  
22 the auditorium here, again, just to keep the process  
23 moving for you.

24 I did mention the field trip. The  
25 team has set up a field trip so you can see some part  
1 of TVA like you did the last time and not just be in<sup>9</sup>  
2 this room all day. Then finally you have dinner at  
3 Chesapeake's at 6:15.

4 So, again, I will be working with the  
5 speakers to make sure they stay on track. If you  
6 have clarifying questions about a matter, certainly  
7 we can deal with those, but otherwise we want the  
8 speakers to have enough time to present their  
9 information.

10 Mr. Chairman.

11 CHAIR MR. TOM LITTLEPAGE: Okay. And  
12 I guess Anda will start. You're on the block first.

13 DFO ANDA RAY: All right. Thank you.

14 CHAIR MR. TOM LITTLEPAGE: We look  
15 forward to hearing from you.

16 DFO ANDA RAY: I'm going to do the  
17 intro as well as point out a couple of TVA folks that

18 we have got. We have got Mike Dobrogosz who is the  
19 project manager of our natural resource planned  
20 effort, and we will talk more about that later.

21 We have Ms. Helen Rucker. She kind of  
22 leads the coordination of the Regional Resource  
23 Stewardship Council, along with Beth Keel.

24 Where did Beth go? Coordinating,  
25 she's out coordinating.

10  
1 London Packard who is our new general  
2 manager of stakeholder relations and our business  
3 operations.

4 I wanted to start off with if  
5 you-all -- with a lot that has happened in the last  
6 year. I know your last meeting I went ahead and  
7 talked about the Kingston effort. Well, a lot of  
8 things have continued the momentum of what we have  
9 learned during the Kingston effort.

10 One of those is that TVA has gone  
11 through and is going through probably the biggest  
12 transformation and the most complete that I have ever  
13 seen in a \$12 billion company. Every month one layer  
14 of management is eliminated and restructured. We are  
15 now down to the fourth layer.

16 As of the last time that you and I had  
17 a discussion, there are now five direct reports to  
18 the CEO. All of them are new, less than five years  
19 to TVA. Then below that -- so they have structured  
20 that to focus on stakeholder external relations,  
21 that's a new president of the company, and that's Kim  
22 Greene.

23 You have the chief operating officer,



24 and that's Bill McCollum. All the strategy goes with  
25 Kim Greene, she was our former CFO. You have people  
1 in performance, which is where our benchmarking 11  
2 efforts and our HR activities will go. Then you have  
3 the chief information officer, which is where the  
4 technology functions go. We have our general  
5 counsel.

6 I will let you know that it saddens me  
7 to say that our General Counsel Maureen Dunn is  
8 retiring, she announced it yesterday, after 30  
9 something years with TVA. She's a dear friend. So I  
10 know that I will miss her.

11 Anyway, those are the five direct  
12 reports to the CEO. It's structured very much like  
13 other utility corporations.

14 Then one level down from that they  
15 have the senior executives and executives, and  
16 that's -- I report to the president because it's  
17 external strategy and environment. So we have  
18 actually raised the environmental persona of TVA up.

19 We have coordinated all environmental  
20 activities, including the management of the lands,  
21 all of the permitting, all of the policy and  
22 strategy. All of the clean energy and renewables is  
23 now -- I'm honored to have that responsibility. So  
24 we have all of that into one organization.

25 So -- but one of the reasons TVA 12  
1 transformed is -- and any of you that know, when you  
2 totally change out top management it means that  
3 there's a signal that they want to see a major change  
4 in the organization, and I think we have all gotten

5 that message, being more accountable, being more  
6 transparent, being able to deal with partial  
7 information.

8                   It's really hard for a government  
9 agency to go, we don't have all the answers, but  
10 here's 30 percent of what we have as opposed to  
11 crossing every T and dotting every I. That's a  
12 paradigm shift for TVA. We're still going to  
13 continue to work through that.

14                   At this point we're -- we have  
15 announced the level below me. In the next week or  
16 next week and a half we will announce the level below  
17 that, and that will continue throughout all levels of  
18 the organization. The idea is to flatten it.

19                   TVA had about 20 layers of management,  
20 and we have been told that it will be no more than --  
21 I think it's 15, 12 to 15, actually 12, I think it's  
22 12. So definitely a much flatter organization. So I  
23 hope you do see significant change in the  
24 transparency that TVA has exhibited compared to the  
25 past.

13  
1                   We continue to face challenges. It's  
2 not only the cultural challenges. I think that's  
3 what kind of the -- the Kingston effort kind of  
4 brought to light a lot of things, you know, you keep  
5 overturning the rocks and going, well, why didn't  
6 somebody bring this up, why didn't somebody bring  
7 this up. It's really easy to play Monday morning  
8 quarterbacking. There were some real ah-hahs and  
9 some real eyeopeners.

10                   As we move forward with the

11 transparency, one of the challenges we face is  
12 there's been some infrastructure that has not gotten  
13 a lot of funding. TVA has gone -- they went ten  
14 years without a rate increase. They had a rate  
15 increase and they went another six years.

16 In the past six years our rates -- our  
17 base rates have increased 50 percent, a 50 percent  
18 rate increase base rate, that's enormous. On top of  
19 that was the fuel cost adjustment. Now we're at a  
20 situation where we have new load to build with new  
21 nuclear so that we can retire some of the fossil  
22 plants to have a cleaner energy portfolio.

23 We have impoundments that need to be  
24 evaluated. We have wet-to-dry conversions for ash  
25 because we think that is a more appropriate way to  
1 handle ash as we continue forward with what fossil 14  
2 plants we have.

3 We have the clean air. We have about  
4 another \$5 billion of clean air controls that we need  
5 to put on. As we begin to retire plants, we still  
6 have to keep some of them running and they still have  
7 to meet the regulatory requirements.

8 With that we're under a tremendous  
9 financial challenge. TVA can only get revenue. Why  
10 this is important to you is because we also want to  
11 ratchet up our natural resource management. We want  
12 to ratchet up our -- how we manage these -- the  
13 resources that you're here to advise us on, but the  
14 revenue only comes from rates or from debt increase.

15 Our statutory debt is very near its  
16 limits. TVA hasn't asked for an increase in its debt

17 cap since 1979. When we asked -- when we got that  
18 increase from 15 million to 30 million, we said we  
19 would be back every five years. We haven't been back  
20 in 30 years. We're going to have to address that  
21 because we now have infrastructure that needs to be  
22 supported with additional capital improvements.

23 The rate issue, although we have some  
24 of the lowest rates in the nation, and that's  
25 something I hear when I go to Washington a lot is,  
1 you know, it's time for the south to belly up to the <sup>15</sup>  
2 bar. Well, now, hold on, folks, you know, there's a  
3 lot of other issues that are going on.

4 In our immediate area in competition  
5 this is the rates for this area, it's not just TVA,  
6 and changing those rates after we have got up  
7 50 percent in the past six years is a significant  
8 impact for the economy in the south. So there's a  
9 lot going on that has an influence on TVA and where  
10 we're moving. So we have -- we are facing those  
11 challenges straight up. At the same time we made a  
12 commitment to be an environmental leader, meaning in  
13 the top one-third.

14 I was with -- very fortunate to be at  
15 a news week. They talked about the top green  
16 companies. I think TVA was invited because we are  
17 actually taking a leadership role in establishing a  
18 utility benchmark footprint, that's a utility  
19 footprint that's actually benchmarkable thanks to  
20 Neelanjan and his staff and will be holding a seminar  
21 with all utilities to come and to talk about their  
22 benchmarks being very transparent so that we get

23 something we can compare with each other. We're  
24 going to get serious about taking a national  
25 leadership in being transparent.

16

1 Also, with the additional scrutiny on  
2 TVA we have had a lot of attention from the House,  
3 Transportation & Infrastructure Committee and the  
4 Senate EPW, Environmental Public Works Committee,  
5 with Senator Boxer. Senator Boxer continues to take  
6 a deep interest in this -- in this agency which she  
7 provides oversight for her committee, along with EPA.

8 So she has asked the GAO to conduct a  
9 very extensive audit on TVA. I have met with the  
10 director. They are looking to see how TVA's cultural  
11 has changed. They are looking at the environmental  
12 aspects, the parts that you look at. They are  
13 looking at energy. They are looking at our ability  
14 to fund the mission that we were created to perform.

15 With that, they said that the audit is  
16 so extensive it will be anywhere from a year to 18  
17 months long, and they have expressed an interest in  
18 interviewing some of you. So you may actually get a  
19 call about how you provide input into TVA and what  
20 your opinion is. So I just wanted to make you aware  
21 of that.

22 I don't know the protocol, whether  
23 they just pick up the phone and call you cold call,  
24 but, of course, your names are out there and they  
25 know how to reach you. So I wanted to let you know

17

1 that that was going on. We are supporting that  
2 100 percent. We hope that they see that we recognize  
3 that there's some areas to improve. So a lot is

4 going on there.

5                   The other thing that we're going to  
6 ask you is you're a Federal Advisory Council.  
7 There's very specific administrative rules on how we  
8 interact with you. A court reporter is necessary, we  
9 feel is necessary, it's not a requirement, but we  
10 feel it's necessary to be able to capture comments  
11 and notes.

12                   When we ask for your opinion you need  
13 to vote as a council and we need to have a quorum,  
14 but we're asking you with this natural resource plan,  
15 and I will talk a little bit about that in just a  
16 second, that we may need to have a little bit more  
17 input on a more informal basis with you where we  
18 don't actually ask you for a vote but we continue to  
19 get your input as a working group.

20                   So we're going to ask several of you  
21 later on today or today and tomorrow if you would  
22 be -- even consider being on a subcommittee of the  
23 FICA. It would not be a decision-making body,  
24 therefore, we would not have to have a quorum, but  
25 it's to be able to continue to provide us input.

18  
1 That would be the analogy, that we have a stakeholder  
2 group for the integrated resource plan, which is the  
3 power side. So I will let you know we will be doing  
4 that.

5                   So any questions?

6                   That was kind of an overview about  
7 where TVA is right now. There's a lot of challenges  
8 but a lot of cool opportunities, I think, in this  
9 area.

10                   Okay. Let me just jump a little bit  
11 to my -- to the new organization. I think you will  
12 be very proud that having listened to some of the  
13 advice that you have provided and the emphasis --  
14 when we talk about violations and encroachments and  
15 how do we take a consistent perspective.

16                   I think you're aware that we had  
17 watershed teams throughout the seven different --  
18 well, we grouped them in seven different watersheds.  
19 We recognize that there's actually a need to be more  
20 consistent with the public, and if you have seven  
21 different watersheds and they have seven different  
22 permitting activities and seven different ways to  
23 interpret what it is TVA does you're just bound to  
24 have some confusion and some angst among the public.

25                   You guys saw some of the violations  
1 and encroachments about two meetings ago. So what we<sup>19</sup>  
2 have done is a couple of things. Campgrounds and  
3 marinas, isn't that one of the things that's special  
4 to this area, that's special to the Valley? It's  
5 just a wonderful place to be outdoors.

6                   TVA has these agreements where we let  
7 people have long-term leases and easements on TVA  
8 property. We haven't been real rigorous in making  
9 sure that they maintain certain standards. We  
10 haven't been real rigorous on making sure that those  
11 agreements are the same, you know, plop in a 30-year  
12 easement agreement and they are off and running for  
13 30 years and we don't come back and see them for 30  
14 years. Well, that's just not going to fly in the  
15 future.

16                   We have established an organization  
17   that will just look at campgrounds and marinas.  
18   Neelanjan's organization, one of the things I have  
19   him to do is step back and look at -- he's kind of in  
20   an auditing group in some ways, violations and  
21   encroachments.

22                   So they hired a contractor to go out  
23   and look at 40 different campgrounds. Very soon now  
24   they will be getting a letter that they are in  
25   non-compliance with the contract with TVA. They will  
1   have 30 days to fix safety violations, that's a long<sup>20</sup>  
2   time to fix a safety violation, and then we will  
3   exercise our rights for re-entry under those  
4   agreements. That's a significant move on your -- on  
5   our part based on the input that you gave us.

6                   We also are consolidating 26(a)'s,  
7   which is the rights people have that have -- own  
8   private property and they want to cross TVA property  
9   to get to water access to be able to build a dock,  
10   we're consolidating that into one organization so  
11   people get the same consistent answer and also we get  
12   it faster. So we call that a storefront and we're  
13   going to make it automated.

14                   Then in the watersheds we're going to  
15   focus them back on what is it -- I don't know if  
16   y'all know, but the kind of people we hire are the  
17   ones come out of school and they are wide eyed and  
18   they are excited about the environment and they want  
19   to protect it and they've read about TVA and they get  
20   out into the watershed team, and in the past what  
21   they get is, oh, go work on that 26(a) permit and go



22 help that person or yell at that person who cut down  
23 the trees. By the way, I know you're only a graduate  
24 student but you can handle all of that pressure from  
25 people yelling at you, and that's not what they  
1 signed up to do. 21

2 So we have got -- TVA has got to build  
3 its capital, its reputation capital back up, and part  
4 of that is taking care of the land we were entrusted  
5 to. And I will tell you how transparent this company  
6 was, we sat in a meeting with all of the executives,  
7 including the CEO, and I said, if we aren't good  
8 enough, if we can't maintain the TVA lands, then, by  
9 golly, shame on us, we need to give it to somebody  
10 who can, and there was silence. I kind of got  
11 scared. I thought they were going to go, okay, let's  
12 do that. I was like, oh, God, I shouldn't have  
13 opened that little door.

14 Unanimously it was no. This is our  
15 responsibility. We're going have to start funding to  
16 this at the level that it needs to be funded. This  
17 is part of what we bring to the Valley. As being a  
18 power distributor, it's not just our corporate  
19 citizenship, it's our mission.

20 So Bruce Schofield who has just come  
21 in is now our new vice president of land and  
22 shoreline management. He will be managing the  
23 watershed teams, the land and the marinas, the  
24 campgrounds, and what I just talked about. His goal  
25 is to try to get those watershed teams back to what  
1 they were intended to do, get the partnerships, 22  
2 maintain those trails.

3                   Y'all went on a trail last time.  
4   Wasn't that wonderful what they were able to do with  
5   that piece of land?

6                   It's more of that. So focus on what  
7   they -- really what their passion is and what TVA  
8   needs to build its reputation back up as opposed to  
9   relegating them to doing paperwork and permits.

10                  So I'm really, really, really excited  
11   that this company has put more of an emphasis on not  
12   only our environmental permitting from our  
13   operation's side but also on the natural resources  
14   and realized that we have got to belly up to the bar  
15   and do a lot more there.

16                  With that, y'all are -- we talked last  
17   time about TVA is stepping back. We have got to look  
18   at how we -- what our portfolio is to our integrated  
19   resource plan. We haven't done one since 1995. We  
20   have talked about the natural resource plan. Those  
21   are two separate now, going down those separate but  
22   overlap.

23                  Let me just use visuals. In 1995 this  
24   was the integrated resource plan, backup volumes with  
25   a summary. The deliverable that we're going to be  
1   running past you, and you may want to choose to read  
2   all of that, will be four tracks. So we will have  
3   four volumes, recreation, I will get right, natural  
4   resources, water resources, and land planning. So we  
5   will have four tracks.

6                   Then we're going to look at those  
7   tracks and say, what's a reactive -- if we were just  
8   going to react to non-compliance and just react

9 one-on-one with things, bring it to us, that's a  
10 scenario. That's a scenario we can do. That's a  
11 low-cost and don't-take-a-proactive approach.

12 A proactive approach says to go out  
13 there and find out where you're not complying and  
14 find out where you can improve. The next scenario is  
15 be a leader, which may be the top cortile, the top  
16 third.

17 The other one is best in class. Now,  
18 obviously we probably can't be the best in class in  
19 everything, but we sure can be best in class in  
20 something.

21 So you will see those four scenarios  
22 in each of these tracks. Then you have got to  
23 integrate that and say, well, TVA may choose to be  
24 best in class in recreation, we may have to choose to  
25 be proactive in land planning, and you will have an  
1 integrated portfolio. With that you will then<sup>24</sup>  
2 develop a natural resource strategy plan. Then you  
3 will do an environmental impact study on that whole  
4 thing to make sure that -- we have to follow the NEPA  
5 and we will look at those alternatives, and then this  
6 natural resource plan strategy will be TVA's plan,  
7 ten-year plan.

8 Now, did I get that right, you guys?  
9 Did I do it right? Okay. Good. We have a lot of  
10 discussion on how we we're going to go through with  
11 that.

12 So that's what you're going to be  
13 working on. That's what the deliverable looks like.  
14 We're targeting April of next year. See, I said the

15 date, April, you don't get to go June, same time as  
16 the IRP, have them both come out, and TVA will have a  
17 strategic direction on its power portfolio and its  
18 land management.

19 All right. So with that can we just  
20 move very quickly to -- I skipped all the way to --  
21 no, I am supposed to do that. Slide 11.

22 All right. I want to talk about you  
23 guys. In the past this is how important what you  
24 have done for us has been. These are the areas that  
25 you've provided input on. Now we're asking you to  
1 provide input on the whole she-bang, the natural 25  
2 resource plan.

3 You have given us this kind of advice.  
4 We track that. We look at those transcripts. We  
5 look at the answers to the questions that you have.  
6 As you can see, a lot of your recommendation over the  
7 past two years have now been implemented in this new  
8 transformation for TVA.

9 Your previous advice is now going to  
10 be integrated into this natural resource plan. You  
11 guys are making a difference. This time that you  
12 spend is making a difference in not only TVA but in  
13 this entire seven-states valley that we serve and  
14 those 293,000 acres of land.

15 We have already talked about that.  
16 All right. So I have asked them about their -- if  
17 you will consider deeply as we go through this today  
18 whether you can participate on additional meetings or  
19 to be on a subcommittee of this FICA.

20 And with that, I think -- is there

21 anything else I need to cover on the natural resource  
22 plan?

23 FACILITATOR WILSON TAYLOR: We do have  
24 time for any follow-up questions, just a couple, if  
25 they have any.

1 DFO ANDA RAY: Okay.

2 CHAIR MR. TOM LITTLEPAGE: Any  
3 questions from anybody? Okay.

4 DFO ANDA RAY: Great. We will just  
5 keep going on the agenda then.

6 MS. HELEN RUCKER: Thank you, Anda.  
7 As Anda mentioned, I am Helen Rucker. I have been  
8 working with Anda for about nine months now as her  
9 senior advisor trying to run behind her and keep up  
10 with her. She's kept me very busy.

11 I am very excited that she has asked  
12 me to shepherd or watch over the natural resource  
13 plan, kind of be the senior management advisor or  
14 guiding factor as we work through this. I am very  
15 excited. I feel very passionate about natural  
16 resource planning.

17 I have been with TVA for 19 years now.  
18 I have been on the watershed teams in Muscle Shoals  
19 for about five or six years, and then I have been in  
20 NEPA for about another four or five years. I have  
21 been actively involved in helping prepare land plans  
22 and cover the environmental assessments and impact  
23 statements that go along with those.

24 Some of the things that I wanted to  
25 talk to you about today, if you remember, we started  
1 out down the path that the NRP was going to be part

26

27

2 of the IRP. From some of the comments we heard  
3 during the public scoping, it became very clear as we  
4 went through public scoping that they were polarized  
5 and there were certain people that were mainly  
6 focused on natural resource and other people that  
7 were mainly focused on IRP.

8                   So I want to talk to you today about  
9 what we have heard since we started this process last  
10 year. So since last year, you know, we started out  
11 in combination with the IRP, and during that public  
12 scoping process we received over 600 comments. Of  
13 those 600 comments, that's when we began to realize  
14 that we probably needed to separate these out so as  
15 we prepared an environmental impact statement the  
16 public could review and provide input on something  
17 they could easily follow on what we were proposing to  
18 do.

19                   As part of the NEPA regulations early  
20 on it -- the National Environmental Policy Act  
21 applies to all federal agencies. One of the  
22 requirements is to make sure that the public is  
23 involved and engaged in all federal decisions.

24                   So the first part of that is scoping.  
25 We want to make sure that we solicit input from the  
1 public on what the action is, do they agree with it,  
2 what are the issues we should consider in our  
3 analysis as we move forward prior to making a  
4 decision.

5                   So the NRP to right now has had  
6 several vehicles to provide comments. It was the  
7 initial phase when we issued the NOI in the Federal

8 Register for the total combined comments, comment  
9 period. We had several meetings.

10 Then when we realized that we probably  
11 would get better input and more focused comments, we  
12 also started out with -- we extended it and had  
13 another 30-day comment period that was solely focused  
14 on the NRP. So we did that last August. We ended up  
15 with the official comment period closed for the IRP.

16 Then of that approximately 630 people  
17 provided comments. Then of that 830 people responded  
18 to a questionnaire that we provided for them to kind  
19 of help guide and make sure we got more specific  
20 comments and issues identified that they were  
21 interested in.

22 So about 600 people also provided  
23 written comments pertaining specifically to  
24 stewardship activities. We also had comments from 14  
25 local, state, and federal agencies in the stakeholder  
1 groups. 29

2 So then we had the second comment  
3 period, which is the 30-day comment period, and that  
4 was last October. As a part of that we specifically  
5 sent out letters to agencies and our stakeholder  
6 contacts across the Valley, people who have provided  
7 specific comments on the -- on stewardship activities  
8 and asked them to provide more -- you know, to make  
9 sure that they were aware that we were separating it  
10 out and we were going to be really focused on NRP.  
11 We received another 76 comments.

12 So here are the agencies and  
13 contact -- key stakeholder groups that we sent

14 letters to, and they provided back additional letters  
15 and comments.

16                   As a result of that, this broadly  
17 characterizes the type of comments we got. In the  
18 top four are -- these are the top ten issue  
19 categories that the public agencies provided. Of  
20 these you will see that by far the top four main  
21 categories and interests are recreation, multipurpose  
22 development, wildlife conservation, and people who  
23 oppose development.

24                   If you will look in your book just  
25 behind the slides that I am talking to right now,  
1 there's an orange or peach colored piece of paper. 30  
2 Attached there is the scoping -- the detailed scoping  
3 document that kind of talks about -- summarizes what  
4 we have done to date, how we engage the public and  
5 tried to get comments, and then if you look on page 3  
6 it really talks about in detail the amount of public  
7 involvement that we have had.

8                   Then some of the questions that we  
9 responded to on the questionnaire, if you will look  
10 on page 16 of that scoping document it talks about  
11 there's three questions on the IRP questionnaire. In  
12 that report the first one, question two, asks the  
13 public to rank the public benefits of environmental  
14 protection providing recreation, electricity  
15 production, economic development, research and  
16 technology, protection of archeological sites,  
17 management of natural resources, to kind of rank them  
18 in terms of their importance on a scale of one to  
19 five.



20                   You will see a graph there on page 15.  
21 Does everybody see that? By far the one that they  
22 ranked most important was electricity production and  
23 then the next one was environmental protection, and  
24 the third category that came in was management of  
25 natural resources.

31

1                   So I wanted to draw your attention to  
2 this. This may be -- as we solicit advice from you  
3 tomorrow and you hear things, how we arrange the four  
4 volumes and some of the things that we're focusing  
5 on, it comes from this report.

6                   We also heard on page 16, question  
7 seven, asks the public to rank the importance of the  
8 following activities; informal recreation, developed  
9 recreation, habitat management, and cultural resource  
10 management. Habitat management was chosen as the  
11 most important by the commenters, and you can see  
12 that at the bottom of the page.

13                   On the next page, page 17, the third  
14 question that we asked them that pertained to natural  
15 resource stewardship activities was a write-in  
16 question. We asked them: What do you value most  
17 about TVA's managed lands and resources?

18                   By far the one thing that they valued  
19 the most in this write-in question was recreation  
20 with 199 folks responding to that. After that was 95  
21 multi-purpose development.

22                   So as you go on into part 2 on page 18  
23 of that document we start -- we provided a summary of  
24 actual comments. Here is what we actually heard them  
25 in their write-in comments. Here are some of the

1 comments that we heard from our letters that we  
2 received from agencies and stakeholders, just to give  
3 you a feel of the passion and of the type of issues  
4 they were specifically addressing.

5               So under natural resource management  
6 we had comments on forestry management. In  
7 particular, one person said the added responsibility  
8 of TVA being the land owner places your agency  
9 squarely in public view to demonstrate sound land  
10 management practices.

11              Under habitat management we hear that  
12 they really want us to enhance and increase habitat  
13 to increase production of rapidly diminishing native  
14 pollinators and some of our native plant species. So  
15 you hear today -- Hill Henry will be talking about  
16 our natural area programs and how we are going to do  
17 habitat management and some of the things that we're  
18 currently doing. People were very interested that we  
19 focus on our management of our federal endangered  
20 species, both aquatic animals and plants.

21              So as you look through this -- I would  
22 encourage you tonight to go through this and look  
23 through this. As we review this document, this is  
24 how we have put together today's agenda is to make  
25 sure that we talk about these type of -- and

1 hopefully what the presenters are going to be talking  
2 about today will address the issues that the public  
3 has raised.

4              The future public involvement, we have  
5 talked about what we have done today. The future  
6 public involvement, as part of the NEPA process we

7 will also be issuing a draft EIS hopefully later this  
8 year, and that will have a 45-day comment period  
9 where folks will actually have 45 days to review the  
10 EIS and provide comments on it. We will have a  
11 public meeting.

12 Prior to that we want to have a  
13 meeting with the RRSC, have them provide advice and  
14 guidance on, here's the EIS, here's where we're  
15 headed, and get some -- and see if we hit the mark on  
16 identifying alternatives and if we identified the  
17 appropriate issues from your perspective.

18 Then finally next year when we issue  
19 the EIS, the final EIS, there will be also another 30  
20 days at the end for folks to react to, here's what we  
21 finally came up with, here's our third alternative.  
22 Prior to going out with the final EIS, we're going to  
23 ask the Regional Resource Stewardship Council to have  
24 input on what we have selected as our preferred  
25 alternative moving forward.

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1 So just to give you an idea of where  
2 we are in the process. This is kind of a high level  
3 road map or where we are in the natural resource  
4 process. We started out with scoping. You can see  
5 that right here is the start of the process with  
6 identifying issues from the public.

7 Right now we're in this part of the  
8 process right here where we are gathering a list of  
9 feasible stewardship activities, descriptions and the  
10 impacts. We're also here in the green part where  
11 we're identifying our future conditions and where we  
12 want to be at the end of the day.

13                   So that's our alternatives of where do  
14 we want to go from that. We have identified our  
15 baseline conditions of what our effective programs,  
16 alternatives, activities that we're doing right now.  
17 So that's where we are at right now in the process.

18                   Then as we move forward we're going to  
19 translate -- we're going to -- these two steps we're  
20 going to start building this into a draft EIS. So I  
21 just kind of want to give you a step back from the  
22 big picture of where we are in the process now and  
23 where we're going.

24                   At the top -- well, the next main step  
25 is we will go to the draft EIS and release that to  
1 the public and have public comment on that. Then  
2 hopefully at the end of this, not hopefully, but  
3 definitely at the end of this we will have a  
4 strategic plan on how we're going to do our natural  
5 resource management activities.

6                   One of the key concepts as we're  
7 moving forward and starting to shape our alternatives  
8 that we're going to evaluate in the EIS is to  
9 consider things that are going to happen in the world  
10 that we won't have control over. One of those things  
11 that we're going to use is scenarios or worlds.

12                   So these are things like what happens  
13 if the economy recovers dramatically over the next  
14 year and what would that drive on TVA properties?  
15 Would that mean there would be more developed  
16 recreation, more people would have money to do -- to  
17 play golf or would the world -- if the economy just  
18 kind of stays the same for the next two or three

19 years, would there be more people wanting to do  
20 informal recreation that cost a little?

21 What other type of activities or  
22 behaviors would that drive on TVA land? If the  
23 economy recovers dramatically, does that mean we're  
24 going to have more demand on our lands for federal  
25 money? Are we going to see more requests for

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1 commercial recreation on TVA lands?

2 So as we look through this step, the  
3 process, this is going to kind of help test that what  
4 we come up with is something in the form of  
5 alternatives and portfolios and that as we come up  
6 with these ideas that they will actually work as the  
7 world changes around us and we can -- in the next 10  
8 to 20 years we have looked long-term and we have a  
9 long-term plan that can react to the different  
10 stakeholder interests, public pressures, political  
11 interests.

12 There may be even things from a green  
13 economy or a global climate change that could put  
14 pressure on our endangered species and we're going to  
15 hear a little bit about today. So we want to make  
16 sure that at the end of the day this strategic plan  
17 that we have come up with is flexible enough to allow  
18 us to react to the changing conditions around us.

19 Also, as we talked about earlier the  
20 overarching environmental policy that we came out  
21 with in 2008, the IRP is a parallel process that is  
22 part of that, the Environmental Impact Statement.  
23 There's a requirement that we will do a corporate  
24 environmental review on these activities as we move

25 forward.

37

1                   So the IRP is going to have a draft of  
2 an Environmental Impact Statement of the draft in  
3 final, and the worlds they are considering or their  
4 scenarios are listed on this slide. We want to make  
5 sure that NRP aligns with that because we're saying  
6 four of these worlds are -- this is what we think can  
7 happen in the next 20 -- 10 to 20 years, and we want  
8 to make sure that we are in line and we have the same  
9 assumptions.

10                   So in the IRP scenarios, they consider  
11 the economy recovers dramatically. There's an  
12 environmental focus as a national priority, which  
13 means you will probably have more environmental  
14 regulations, people will be more passionate about the  
15 environment and seeing that it's preserved, prolonged  
16 economic malaise.

17                   Game-changing technology, that's if  
18 there's technology out there that's going to come  
19 about that will change the way we produce  
20 electricity, the way we transmit electricity, but we  
21 really didn't think that would have an impact, we  
22 don't think, on our natural resource plan. Reduce  
23 dependence on foreign energy sources, we really don't  
24 think that will have an impact on our natural  
25 resources. Carbon regulation creates an economic  
1 downturn.

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2                   So those are the ones that the IRP has  
3 developed. So the ones that we're looking at  
4 developing for the NRP are these four and those that  
5 we feel are -- if the economy recovers dramatically

6 that will impact our NRP, environmental focus is a  
7 national priority, prolonged economic malaise and  
8 then the carbon regulations. So we think those are  
9 four type of scenarios that could have impacts on how  
10 we manage our lands.

11 Is there any questions?

12 Yes, Renee.

13 MRS. RENEE HOYOS: Is there a reason  
14 why carbon regulation is considered a -- would create  
15 an economic downturn? I mean, is that just an  
16 assumption?

17 MS. HELEN RUCKER: That's an  
18 assumption that the carbon regulation could increase  
19 the cost of controls to put in additional air  
20 controls, air -- clean air controls, that that could  
21 create such a cost for the industry to put on that  
22 control could drive up the cost of goods.

23 MRS. RENEE HOYOS: Because I believe  
24 the carbon regulation is going to be creating a new  
25 market.

39

1 Am I understanding it correctly?

2 So it would be offset by gains in a  
3 market.

4 DFO ANDA RAY: I think there's a whole  
5 lot of discussion on what the effect of the economy  
6 and when that new market would be in place. So there  
7 would definitely be a negative effect on business and  
8 prices before that new market took place that was  
9 separate from how electricity was produced.

10 MRS. RENEE HOYOS: I see.

11 DFO ANDA RAY: So I think that's

12 really the issue is timing.

13 MRS. RENEE HOYOS: Okay.

14 MR. NEELANJAN PATRI: Ultimately  
15 you're looking at the C02 allowances too and that  
16 would be an increase. In addition, you're not  
17 looking at controls, you are also looking at the  
18 price of the C02 allowances from the market.

19 MS. HELEN RUCKER: So there is a lot  
20 to cover here. I really would like for you to see  
21 them as we look towards moving or developing our  
22 alternatives, take a look at the scoping comments  
23 that we have heard because that will tell us, you  
24 know, what the public thinks and what they value and  
25 it's really going to guide some of the alternatives  
1 and how we consider those in the EIS to make sure 40  
2 that what we come up with meets the needs and values  
3 of the public and our stakeholders.

4 So today as we move forward we -- I  
5 have outlined four key areas for each one of the  
6 items. So hopefully the speakers that we have lined  
7 up are going to address the activities and the  
8 programs that we're currently doing so that you can  
9 hear what we're currently doing and help provide  
10 advice and guidance tomorrow on the three key  
11 questions, and I believe those were all sent to you.

12 So now to kind of help start getting  
13 our arms around how do we take all of this and come  
14 up with a portfolio, Mike Dobrogosz is going to come  
15 and talk to you about how we're going to structure the  
16 document and the plan and move forward with shaping  
17 the alternatives.



18 CHAIR MR. TOM LITTLEPAGE: Thank you,  
19 Helen.

20 MR. MIKE DOBROGOSZ: Good morning,  
21 everyone. If I haven't had a chance to meet you yet,  
22 I tried to go around the table earlier, but my name  
23 is Mike Dobrogosz. I'm the project manager for the  
24 NRP. I'm working very much in tandem with my  
25 colleague back there, Heather Montgomery.

41

1 Heather, do you want to just raise  
2 your hand?

3 What I would like to do is kind of  
4 play off a little bit of what Anda was saying and a  
5 little bit of what Helen was saying to give you a  
6 little sense of what this document is going to look  
7 like and how we're going to get there at the end of  
8 the day.

9 First off as with any type of project,  
10 and I think this is going to be a little overview  
11 from what you probably heard back in the fall, we're  
12 going to try to focus on some specific goals. We're  
13 going to make sure that we attain these things at the  
14 end of the day.

15 Obviously, the first thing is we want  
16 to make sure that this thing is aligned, the NRP is  
17 aligned with the environmental policy, I think that's  
18 a given. I think it also is a given that we want to  
19 make sure that we provide a very strategic plan at  
20 the end of the day which our resources and management  
21 decisions.

22 The third component also is we want to  
23 make sure we provide adequate NEPA coverage. Think

24 about all of the different activities and programs  
25 that we're going to be doing in the course of this 42  
1 plan, we want to make sure that all of that is  
2 covered environmentally. So the more we can do on  
3 the front end, perhaps a little bit less we can do on  
4 the back end, making sure all of these implementation  
5 plans and activities are taken care.

6 We also want to provide our resource  
7 specialists with what I call kind of a reference  
8 manual or a guide. So at the end of the day when we  
9 have a strategic plan that it's focusing us in a  
10 particular direction, that they have a guidebook that  
11 they can look in that says, okay, these are all of  
12 the different implementation activities and programs  
13 that I am going to be doing, here's how I am going to  
14 be doing them, here's the costs associated with that.  
15 So it would be nice that they can actually look at  
16 that when all of this is done.

17 Last, but not least, and what I think  
18 is probably one of the most important things on any  
19 kind of plan on this nature is we want to make sure  
20 that we provide absolute clarity and transparency  
21 with this process.

22 You know, Colin Powell once said, the  
23 former Chairman of the Joint Chiefs, when you talk  
24 about communication, it's taking a very, very complex  
25 issues and trying to make it as simple as possible 43  
1 and to convey it as simple as possible, and that's  
2 the way I am kind of looking at the NRP.

3 We have a very complex process, a lot  
4 of issues to discuss, and we're trying to break that

5 down into a very simple format so the public can  
6 understand that. I think the more simple and clear  
7 we can make that, the more transparent that becomes,  
8 and then the public can kind of see what we're doing  
9 and why we're doing it.

10 As Anda was referring to earlier of  
11 what we're going to do, we have broken this down into  
12 four process areas or resource areas, also known as  
13 volumes, but as defined by the environmental policy  
14 natural we're going to be looking at natural resource  
15 management, recreation, water -- reservoir lands  
16 planning, and water resource management.

17 The reason we have the word exclusions  
18 up there is we want to make sure that you understand  
19 that there are other types of things obviously like  
20 shoreline management that we're not going to be  
21 talking about in this particular plan because they  
22 have been covered in other environmental reviews,  
23 such as our shoreline management initiative and also  
24 our river operations study. So we're going to be  
25 focusing just on these four resource areas.

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1 DFO ANDA RAY: And Mike.

2 MR. MIKE DOBROGOSZ: Yes.

3 DFO ANDA RAY: We're going to  
4 reference those.

5 MR. MIKE DOBROGOSZ: Yes. It will be  
6 referenced throughout the plan.

7 DFO ANDA RAY: Thank you.

8 MR. MIKE DOBROGOSZ: As Anda was  
9 referring to earlier, we're going to break these into  
10 volumes. I guess I would ask you to ignore volume

11 No. 1 for a moment. We're going to be looking at  
12 four of the volumes. Each one of those resource  
13 areas will be contained within volume, Volume 1, 2,  
14 excuse me, the natural resource management,  
15 recreation reservoir lands planning, and water  
16 resource management.

17 At the very end of the day what we're  
18 going to try to do is take those four resource areas,  
19 combine them, look at them, assess them, test them so  
20 that at the end of the day we can have a very strong  
21 portfolio of the different types of options and the  
22 different types of activities and programs that we  
23 want to move forward on. That's what's going to  
24 consist of the volume No. 1, the natural resource  
25 plan or the natural -- the NRP volume No. 1.

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1 I will get into a little more detail  
2 as to how those are going to be broken down. You can  
3 almost look at each one of these volumes like a mini  
4 EIS. They are each going to have their own specific  
5 environmental review. They are going to have an  
6 introduction. They're going to have a purpose and a  
7 need section. We're going to look at implementation  
8 activities, alternatives, affected environments, and  
9 also the environmental consequences. So, again, it  
10 gets that initial goal of trying to ensure that we  
11 have the proper NEPA coverage along the way.

12 Okay. So the question is: How do we  
13 get there? It's a fairly arduous task. So you have  
14 already heard Helen talk about the scoping. We have  
15 already gotten some public comments. We will  
16 obviously be getting your comments, of course, in the

17 next couple of days.

18                   We have put together some sub-teams,  
19 and I will go through these each individually. We  
20 have put together some sub-teams. Those sub-teams  
21 will actually look at activities, compile activities  
22 that we're currently doing and also activities that  
23 we hope to be doing in the future or could be doing  
24 in the future.

25                   We're going to take those activities  
1 and group them into alternatives. Those alternatives<sup>46</sup>  
2 will be then looked at, tested, assessed to try to  
3 come up with the best portfolio for TVA. That, in  
4 essence, will become our natural resource management  
5 plan. So, again, I will go through each one of those  
6 individually.

7                   We formed sub-teams because we thought  
8 it was very important given the volume of information  
9 that we're dealing with here, each particular  
10 resource area. We formed a sub-team for each of  
11 those areas because those are the specialists. They  
12 are the biologists, the foresters, the archeologists,  
13 the recreation specialists that knows those areas  
14 best.

15                   So we put those together. Then those  
16 sub-teams were asked to identify all of the various  
17 current activities and programs associated with that  
18 particular resource area. The reason I have the word  
19 question up there is to give you some context that  
20 that's one of the things we're going to be asking you  
21 to help us with tomorrow is to look at those  
22 activities, in particular with the natural resource

23 management plan and the water resource plan, to look  
24 at those activities because those are the most  
25 complicated and voluminous, to look at those plans  
1 and activities and make sure that we are hitting all<sup>47</sup>  
2 of them, are we saying what we need to say, do they  
3 need to be prioritized, do we need to have some high  
4 priority, some low priority. So that's just to give  
5 you some context of what we're going to be asking you  
6 tomorrow.

7 Just to give you a little kind of an  
8 example of what -- how these activities would be  
9 broken down, this is actually looking at how those  
10 activities would be grouped under the critical  
11 success factors as they are outlined within the  
12 environmental policy.

13 I'm not going to steal the thunder  
14 from the folks that are talking this afternoon, but  
15 they are going to get into all of these. This gives  
16 you examples of the types of the things that we may  
17 be able to do.

18 Okay. So we have the sub-teams.  
19 Those sub-teams have actually grouped all of the  
20 activities or actually looked at all of the  
21 activities, listed all of the activities, and now  
22 we're going to try to group those activities into  
23 various alternatives, kind of strategic options. How  
24 do we want to focus on them? What do we want to  
25 focus on?

1 There's kind of several ways one can<sup>48</sup>  
2 do that. If you're familiar with environmental  
3 reviews, one of the ways that we typically tend to

4 group activities is through what I call kind of a  
5 high/low incremental effect. In other words, you can  
6 group your activities by the very base minimum that  
7 you wanted to.

8                   Maybe you're just going to focus on  
9 regulatory stuff or compliance-related issues, the  
10 very bare minimum or maybe you're going to do just  
11 the opposite, maybe you're going to be the very best  
12 in class, leadership, a lot of resources applied to  
13 that particular resource, maybe you can do something  
14 in between. So, again, a different way of trying to  
15 group those activities so that we can make it a  
16 little easier during the environmental review.

17                   Another way of doing that is actually  
18 looking at kind of a focus area. Instead of looking  
19 at it incrementally, maybe we focus our efforts on,  
20 for example, using the natural resource management  
21 plan, maybe we focus that dispersed recreation and  
22 what activities would actually be embedded within a  
23 dispersed recreation alternative.

24                   Maybe we look at kind of a green  
25 approach or conservation. What kind of activities  
1 would be grouped under that kind of scenario? Maybe<sup>49</sup>  
2 even partnerships or a carbon world, trying to  
3 identify a very low environmental footprint. So  
4 there's different ways that we can actually group  
5 those activities.

6                   This is where it gets kind of -- I  
7 don't want to say challenging. It's interesting. I  
8 think it's actually very, very effective for what  
9 we're trying to do in the end game.

10                   We have those sub-teams. Those  
11 sub-teams have formed all of the activities or listed  
12 all of the activities. Those activities have been  
13 grouped in alternatives. Now what we want to do is  
14 take those alternatives and test them against a  
15 matrix that Helen was referring to earlier.

16                   Let me just kind of walk you through  
17 this just a little bit so you understand kind of our  
18 thought process. Imagine, if you will, kind of a  
19 first scenario, which would be the economy is  
20 recovering dramatically. Let's think -- pretend  
21 we're thinking about recreation, for example. In a  
22 very, very strong economy, and we have a very passive  
23 approach of how we want to do our business, what  
24 alternative within recreation would you actually put  
25 in that particular box? We have maybe five or six  
1 different alternatives that we have within 50  
2 recreation, and we will choose one that fits that  
3 particular scenario.

4                   We will do the same thing with natural  
5 resource management. In a very strong world, a  
6 strong economy, and we have a very passive or a very  
7 reactive approach to things or, excuse me, yeah, what  
8 alternative would we actually put in that particular  
9 box?

10                   You can actually go down the list,  
11 okay, in a very strong economy we're being very  
12 active and very proactive. In recreation what  
13 alternative would actually fit in that box? It would  
14 probably be different from that box that we just  
15 worked on.



16                   So at the end of the day what we will  
17 have is a very populated matrix that will give us all  
18 the different options that we have available given  
19 all the different scenarios and all the different  
20 approaches that we can apply. In essence, each one  
21 of those boxes become a little mini portfolio in and  
22 of themselves.

23                   Well, what does that mean? What does  
24 that tell us?

25                   We have a huge matrix that we're  
1 working on here, but does that give us any kind of 51  
2 information?

3                   The key here is trying to at this  
4 point in time of running this through kind of an  
5 evaluation filter whereby we can determine what makes  
6 sense to TVA, how do we want to move forward? What  
7 helps define us as a leader in resource management?

8                   That's where we're going to have you  
9 help us tomorrow is as we're looking at those  
10 particular evaluation criteria, what are they?

11                   What is that great, very good,  
12 appropriate filter that we can take all of those  
13 particular options, all of those activities, all of  
14 those alternatives, run them through so at the end of  
15 the day we have a very strong, robust portfolio?

16                   So, again, this gives you a little  
17 context as to what we're going to be talking about  
18 tomorrow.

19                   The results of this evaluation will  
20 allow us to build, as I was just referring to, a very  
21 robust portfolio of resource management options.

22 That portfolio will give us the parameters by which  
23 we can frame the natural resource strategic plan.  
24 So, in other words, we now have a very robust  
25 portfolio that tells us the types of activities, the  
1 types of alternatives we want to move forward on, and 52  
2 that will kind of give us the strategic direction of  
3 how we're going to move forward.

4 Let's say five of the seven  
5 alternatives that we choose are focused on more of  
6 conservation. Maybe that's how we sort of start to  
7 couch our strategic plan.

8 So let me just walk through this  
9 again. I know this is a process that's taking me  
10 several months to sort of get my head around. So I  
11 will just sort of walk through it step-by-step.

12 First. The NRP will focus on the four  
13 resource areas. Those resource areas will combine --  
14 be combined in five separate volumes. Each volume  
15 will contain a comprehensive list of activities.  
16 Those activities will be grouped into alternatives.  
17 Those alternatives will be tested on that matrix that  
18 we referred to earlier. Based on this test, TVA will  
19 develop a very robust portfolio of resource  
20 management options. Using that portfolio we can  
21 develop strategic plan.

22 Have I lost everybody?

23 Pictures sometimes are worth a  
24 thousand words. Let's take that same list of  
25 activities and you can kind of see how it plays out 53  
1 here. We have the four resource areas, resource  
2 management, recreation, water resources and lands

3 planning, and I do want to -- I meant to talk about  
4 this earlier.

5 Under natural resource management,  
6 cultural resources is embedded within that resource  
7 area. I wanted to make sure you understood that  
8 because we had some questions about that because  
9 cultural was not in the name.

10 Anyway, we will take those four  
11 resource areas and those four areas will be broken  
12 down into activities. Those activities will be  
13 grouped into alternatives. Those alternatives will  
14 be tested on that matrix. That matrix will run  
15 through kind of an evaluation filter, which you will  
16 help us try to set what those evaluation criteria  
17 are. That, in essence, will create a very robust and  
18 strong portfolio and that at the end of the day will  
19 help to set our strategic plan and all of this is  
20 covered within the course of the -- or the umbrella  
21 of the EIS.

22 So the question is, given this  
23 process, are we meeting our goals that you saw in the  
24 first slide?

25 The first goal was are we aligning  
1 with the environmental policy? 54

2 I would contend that, yes, we are. If  
3 you look at the environmental policy, under that  
4 there are three critical success factors. Those are  
5 sustainable land use, natural resource management,  
6 water resource protection. Under that we have our  
7 four volumes, natural resource management,  
8 recreation, lands planning, and water resource

9 management. So I do see a very clear line of sight  
10 and alignment with the environmental policy.

11 Are we providing a strategic plan that  
12 guides us to resource management decisions and  
13 actions?

14 I think yes. At the end of day after  
15 we go through this process, we run it through the  
16 environmental filter we talked about, we will have  
17 that strong portfolio, and at the end of the day we  
18 will have -- be able to craft a strategic plan.

19 Is this providing the necessary NEPA  
20 coverage?

21 I think the EIS is going to be  
22 covering each one of these volumes. I mentioned  
23 earlier each one would be kind of like a mini EIS.  
24 So we will have total comprehensive NEPA coverage  
25 across the board.

55

1 We are providing the specialists with  
2 a particular reference tool. You can imagine each  
3 one of these as a little book that they can pull out.  
4 So if we have a strategic plan and a portfolio and  
5 they need to know what implementation activities are  
6 and associated costs and how to do those, they will  
7 be able to reference that.

8 You know, are we being very clear and  
9 very transparent?

10 I think we're trying to do that as  
11 best we can. Obviously, this is a very complicated,  
12 a very broad type of program, and we're making sure  
13 that as we talk about each one of these steps, each  
14 one of these volumes, that we're trying to be as

15 clear as possible because, again, as clear as we can  
16 be it becomes a little more transparent to the public  
17 of what we're doing and why we're trying to do it and  
18 the decisions we're trying to make.

19 So where do we go from here?

20 We are finishing up the scoping  
21 document. I think based on the comments we received  
22 today, is that correct, we're going to be  
23 incorporating your comments into that scoping  
24 document, and then we're going to have that printed  
25 by the end of this month.

56

1 We're obviously meeting with you right  
2 now. Then this summer we're going to be doing the  
3 draft environmental statement. We're also going to  
4 be doing public scoping.

5 Right now we have five public meetings  
6 tentatively scheduled in the course of the summer  
7 spread out geographically, and then hopefully get you  
8 back here in the fall to let you know the status of  
9 things, where we are in the course in terms of the  
10 project, in terms of the draft, in terms of the  
11 public meetings, get you updated as to where we're  
12 at. Then finally in April of 2011 we hope to have  
13 the final plan and draft completed.

14 So, again, it's a very long process,  
15 but if you dissect it sort of step-by-step it starts  
16 to make a little sense in terms of how we started and  
17 how we're going to get to the end in the spring of  
18 next year.

19 So with that, any questions or  
20 comments?

21 CHAIR MR. TOM LITTLEPAGE: Has anybody  
22 got any questions?

23 I have got one, Mike. Relative to --  
24 as we go through this process, you know, with the  
25 goals to get to this fixed document, as part of this  
1 do we identify the things that would be monitored on<sup>57</sup>  
2 a regular basis and try to identify thresholds by  
3 which things are beginning to get out of bounds with  
4 the assumptions that went into it?

5 MR. MIKE DOBROGOSZ: Yeah. I think  
6 all the activities -- whatever we end up deciding to  
7 do in terms of the robust portfolio, it will be  
8 embedded with all of the various activities and  
9 alternatives that are there, but each one of those  
10 will have the various metrics that will identify what  
11 we were doing, how we will be doing the monitoring,  
12 the sideboards, all of those different types of  
13 things. So it will be very clearly defined at the  
14 end of the day.

15 CHAIR MR. TOM LITTLEPAGE: Okay.

16 MR. MIKE DOBROGOSZ: Does that answer  
17 your question?

18 CHAIR MR. TOM LITTLEPAGE: Yes. Thank  
19 you.

20 Does anybody else have any other  
21 questions for Mike?

22 MR. MIKE DOBROGOSZ: I think we're at  
23 a break.

24 CHAIR MR. TOM LITTLEPAGE: We will go  
25 ahead -- we are a little ahead of schedule. Let's  
1 take about a 15-minute break.<sup>58</sup>

2 (Brief recess.)

3 CHAIR MR. TOM LITTLEPAGE: If we could  
4 get everybody to start moving back towards their  
5 seats, please. We're going to try to, I guess, see  
6 if we can take advantage of the schedule and move one  
7 of the presentations that we were going to receive  
8 during lunch into here and that would allow us to use  
9 lunch to visit and kind of talk about what we're  
10 hearing. So with that, I guess we're ready for our  
11 next speaker.

12 FACILITATOR WILSON TAYLOR: Bucky  
13 Edmondson is going to be our next speaker.

14 MR. BUCKY EDMONDSON: Good morning. I  
15 am going to give a brief presentation of our lands  
16 planning process, give an overview of that.

17 Throughout its history, TVA has made  
18 lands available for a variety of activities. We have  
19 made lands available for public parks, industrial  
20 development, commercial recreation facilities,  
21 residential structures, tourism, forest and wildlife  
22 management, navigation areas, and various other types  
23 of uses.

24 When we talk about lands planning,  
25 what is the scope of lands planning? What is TVA  
59 talking about?

2 Basically, we have 46 reservoirs  
3 throughout the Tennessee Valley that we have TVA  
4 properties around. This is over 11,000 miles of  
5 shoreline. We have 293,000 acres of land that are  
6 around those reservoirs.

7 Well, what we often like to say is in

8 the beginning after the earth cooled, TVA bought 1.3  
9 million acres of land, and that's oftentimes where we  
10 start. When we start talking about managing TVA  
11 land, we have to go all the way back 75 years to talk  
12 about the history of how we procured lands and what  
13 we have done with those lands.

14 We have 1.3 million acres of land  
15 today that we currently -- that we bought, and we  
16 transferred or sold approximately a half million of  
17 those acres. 300,000 or so we transferred to state  
18 parks, recreation facilities, to the forest service,  
19 to the park service, any number of local and state  
20 governments.

21 In addition, we sold some 200,000  
22 acres of land for a variety of purposes, again,  
23 industrial, commercial, and recreational potentials.  
24 So we have continued to have management  
25 responsibilities on that half million acres or so of  
60  
1 the original 1.3 million acres.

2 470,000 acres of that original land is  
3 under the water. Yeah, we do have some managerial  
4 responsibilities there as well, but, of course, you  
5 know, it's covered with water. Those of you-all who  
6 live in the tributary areas know that most of the  
7 time it's covered with water or during the summer  
8 season. During the drawdown season, you know, it's  
9 still there and we have managerial responsibilities  
10 over that drawdown area.

11 We have about 35,000 acres or so of  
12 land that's in our nuclear plants or fossil plants,  
13 our corporate offices, such as this, and then that



14 gives us a balance of 293,000 acres of land that we  
15 talk about that's reservoir lands that we manage.

16 Now, in our reservoir lands we have  
17 about 80 percent of that land that's being utilized  
18 for natural resource management or sensitive resource  
19 management. We have about 7 percent of that land  
20 that's being managed for developed recreation, and  
21 that might be TVA-owned developed recreation sites,  
22 municipal sites, state sites.

23 We have about 7 percent of our land  
24 that's being utilized as our dam reservations where  
25 the actual dams for those reservoirs sit, and  
1 1.5 percent of our land is being used for industrial<sup>61</sup>  
2 operations. With industrial operations our lands are  
3 uniquely situated because they are waterfront, and  
4 there's only so much waterfront land that's available  
5 to be used for industrial purposes.

6 Then about 5 percent of the land is  
7 used as residential access. Over the years, like I  
8 say, TVA sold some 200,000 acres of land, and a lot  
9 of that is where you see the existing houses and that  
10 kind of thing around the reservoirs.

11 When we talk about lands planning in  
12 TVA, again, we're talking about a 75-year history.  
13 We have several methods of planning. We have some  
14 places that we have no planning. We have some places  
15 where we have a forecast system, which is a product  
16 of the '50s. We have a multiple-use allocation  
17 planning process, which is basically a product of the  
18 '80s and '90s.

19 We have a single-use partial

20 allocation process, which is pretty much the current  
21 process that we use today. Just recently we have  
22 taken all of these types of plans and tried to  
23 compare apples-to-apples, and we call that the rapid  
24 land assessment methodology.

25                               When we look at the areas that have no  
62  
1 plan, we're talking about Wilson, Beech -- the Beech  
2 reservoirs, there's eight of those out in West  
3 Tennessee and Great Falls. You say, well, why didn't  
4 you ever plan those? How can you not have a plan?

5                                Wilson what we purchased or what was  
6        given to TVA when we became TVA in 1933. That's  
7        basically the area that's the Muscle Shoals dam or  
8        Muscle Shoals reservation area and some associated  
9        parcels.

10                               Beech River developments are one of  
11       those tributary development authority areas where we  
12       have a contract that basically says how we're going  
13       to manage those lands. So we have not done a plan  
14       there.

15                   Great Falls, again, is an area that --  
16   basically what we own there is a dam reservation with  
17   a state park around a good bit of the rest of the  
18   land.

19 In the forecast system, a system that,  
20 like I say, was basically a system of disposal that  
21 we developed in the '50s, we went around and we said,  
22 okay, we're going to sell this land, this land, and  
23 this land for various purposes and then different  
24 programs -- TVA programs said, well, we're interested  
25 in retaining this property for certain reasons.

1                   The only two forecast systems that we  
2   have left in use today are on Fort Loudoun and  
3   Normandy. You know, there's not a whole lot of land  
4   in these two areas. There's not a whole lot of TVA  
5   lands on any of these areas that they were dealing  
6   with. The lands planning was kind of focused on the  
7   biggest bang for the buck where most of our land was.

8                   In 1979 TVA started a systematic  
9   program of planning these lands a little different  
10  than a forecast system. We began to engage the  
11  public saying, what do you want to see out here, how  
12  should TVA manage these lands, and we basically did  
13  lands plans on all our main stem reservoirs.

14                  Remaining still today we have  
15  Chickamauga, Nickajack, Kentucky, and Wheeler, not  
16  very many reservoirs, but a whole lot of land. Some  
17  130,000 acres or so of land rests in those four lands  
18  plans.

19                  What the multiple allocation process  
20  did was basically say, okay, this is good for  
21  economic development. It's good for forest wildlife.  
22  It's good for navigation. It's basically good for a  
23  lot of things. I mean, it didn't really -- it didn't  
24  really focus you down to what you -- what you needed  
25  to do with the land. It was basically saying it's

1   suitable and capable for a variety of activities.

2                  Probably in 1999 or probably '96 or so  
3   we started developing the process, and the first plan  
4   was completed in '99 on the single purpose --  
5   single-use allocation process, and that's kind of the  
6   process that we use today. It's the way our plans

7 are currently being developed.

8                   What this did, and we're going to talk  
9 a good deal about this process as the slides go  
10 forward, but basically we have 22 reservoirs that  
11 have been planned like this and nine that are  
12 currently being planned. One of those is an update.

13                   In 2006 with the land policy,  
14 comparing multiple-use allocations, no plans,  
15 single-purpose plans, forecast systems, and trying to  
16 explain to Anda how all of these different things  
17 would work and how all of these different lands would  
18 be utilized, it basically became apparent that we  
19 needed to do something different. We needed to be  
20 able to talk with a single nomenclature, be able to  
21 talk about lands in one way.

22                   So what we developed was a -- what we  
23 call the rapid land assessment. We basically looked  
24 at the lands plans that were in existence that the  
25 Board had approved. We looked at -- the current  
1 lands plan was the gospel as far as the zones, the 65  
2 single-purpose allocations. We looked at the plans  
3 where we had forecasts or no plans. We looked at the  
4 land use and how they were being used.

5                   We converted all of that to one single  
6 nomenclature. It's just an in-house basically thing  
7 that we utilized so that we can talk about that we  
8 have 80 percent of our lands in a sensitive resource  
9 management or natural resource conservation.

10                   Actually, if you really went into  
11 that, we have some that's in multiple purpose that  
12 can be used for economic development, natural



19 that's simply getting your act together, looking at  
20 your land rights, making sure that the things that --  
21 that where you are going to allocate lands that you  
22 know what your commitments and your obligations are  
23 on that land.

24               We identify our resources from  
25 databases, from information that we have. You know,  
1 we have some excellent databases on our endangered<sup>67</sup>  
2 species, our archeology. We're able to pull that in,  
3 overlay, decide, okay, those are sensitive resource  
4 management areas.

5               We basically do a preliminary land  
6 allocation, which is very similar to what this rapid  
7 land assessment was where we say this is what we  
8 think, this is what we think based on our  
9 commitments, based on the information we have.

10              Then we engage. We engage the public.  
11 We engage the stakeholders. We engage groups like  
12 this. We get their feedback. We look at that  
13 feedback. If there's places that we need to go get  
14 new information, someone wants a development here,  
15 someone says, oh, I know of a sensitive area over  
16 here, we gather that new information.

17              Then it's just a pretty standard NEPA  
18 process, we develop our alternatives, and we go back  
19 out to the public once again. We say, here are our  
20 alternatives, what do you think?

21              Needless to say, they always have a  
22 great many opinions. We often hear -- we get tons of  
23 opinions on our alternatives. We go back and look at  
24 that information, develop a final alternative and

25 take it to the Board.

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1 So what is a lands plan? What is a  
2 lands plan?

3 You know, we have talked about the  
4 process. We have talked about our goals. What does  
5 it -- what ends up happening there?

6 Basically, we take that -- how many  
7 acres that are on that reservoir and we put it in  
8 zones. These zones are up here. You will hear me  
9 quickly go into the vernacular of zone 1, zone 2,  
10 zone 3, zone 4, but hopefully I will stay with what  
11 actually the zones represent.

12 We have basically 7 zones. One of  
13 them -- one of the zones we will talk about in just a  
14 minute, but oddly it's not even our land but we put  
15 it on our lands plans. That zone, zone 1, non-TVA  
16 land. Remember, I talked about the forecast systems  
17 and I talked about the multiple-use allocation plans,  
18 what those ended up being were plans that just had  
19 various little sections of TVA land shown.

20 In '96 and '99 what we wanted to do  
21 was basically be able to look at the map, and the map  
22 is the heart of a lands plan. We wanted to be able  
23 to look at the map and say and understand what was  
24 going on out there.

25 So what do you do with all of this  
1 flowage easement that TVA owns?

69

2 You know, we're talking about we own  
3 293,000 acres, that we had 470,000 acres under the  
4 water. Well, you know, we also have a tremendous  
5 amount of flowage easement. When you look at that

6 and what that -- what that is is a place where TVA  
7 doesn't own the land, and you-all may not have  
8 realized that, but over the 11,000 miles of shoreline  
9 that TVA has out here, we don't own almost 17 percent  
10 of that shoreline. Again, that's where you find a  
11 lot of the residential development on lakes. Some  
12 lakes are almost 100 percent flowage easement.

13 So what we want to do is we wanted to  
14 be able to represent that on the maps so that we knew  
15 that we had, A, looked at that and thought about it  
16 and shown it so that we can say, oh, that's flowage  
17 easement land.

18 You say, well, what does that matter?

19 Well, first of all, if you start  
20 cutting your tree, they're your trees, you know, they  
21 are not our trees. If you -- the archeology are not  
22 federal archeology resources. We have to consider  
23 them if we're doing 26(a) actions, but, you know, if  
24 they are not on -- so it's important to know that  
25 federal land. So it's basically showing the  
1 non-federal land. 70

2 The second zone is the TVA operations  
3 zone. This is our dam reservations. It's pretty  
4 simple. Our dam reservations are where the dams sit.  
5 Our navigation areas, fleeting, safety landings, all  
6 of those type things roll into our Zone 2, TVA  
7 project operations. A fairly constant, you know, a  
8 dam reservation is not going anywhere. You know, the  
9 dams are going to be there.

10 In addition to that, we have a little  
11 catch-hold here, and it's for those infrastructure



12 projects that since -- since 1933 TVA has done one of  
13 each. You know, basically if you look back at the  
14 history, we have done one of each. If you name it,  
15 it's probably out there. So we had to have a  
16 catch-hold place for the sewage treatment plants, the  
17 water treatment plants, all of the type public  
18 infrastructure that over the years had been a part of  
19 the things that we had made lands available for that.  
20 That falls in Zone 2.

21 TVA project operations, in our next  
22 zone, the sensitive resource management zone, it's  
23 pretty straightforward what that zone is. It's where  
24 Hill will be talking in a few minutes. It's where  
25 our endangered species are. It's where our  
1 archeology areas are. It's where our wetlands are. 71  
2 It's where our -- where our treasures and jewels of  
3 natural resources are, waterfalls. Unique areas that  
4 are on TVA land, they all fall in this sensitive  
5 resource management zone.

6 I'm not going to say of the 293,000  
7 acres that we have actually looked at every acre to  
8 know where every flint tip of archeology is. You  
9 know, the dollars there are just huge, but where we  
10 do know that we have that information, that falls  
11 within our sensitive resource management areas.

12 The primary goal of sensitive resource  
13 management areas is to manage and to protect the  
14 resource. Whatever the resource, the reason it got  
15 there, that's why -- that's what we have got to  
16 manage for.

17 That doesn't mean that you can go out

18 there. It doesn't mean -- again, you know, this  
19 represents some 30 percent of our total land base.  
20 It doesn't mean that you can't go out and hike, fish,  
21 hunt, camp, but our primary mission is the protection  
22 of that resource.

23               The next zone is our -- what we call  
24 our natural resource conservation zone. Now, the  
25 primary mission of that is to have the dispersed  
1 recreation occurring, have an interface with the 72  
2 public, have a place where you can go hunt, fish,  
3 camp, hike, and play. So that's the primary  
4 management philosophy on natural resource  
5 conservation is making it available for the public.

6               Now, the people can't hunt, fish,  
7 camp, and play on some -- on our project operations  
8 land, our sensitive resource lands, and many of our  
9 others land, but this is our primary area where  
10 that's our main management philosophy.

11              Like I said, one of our -- one of our  
12 treasures is water access ports. You know, in some  
13 places we're the only game in town. We own the  
14 entire rim around the reservoir. To have barge  
15 traffic, barge terminals, and water-based industry,  
16 you know, TVA needs to make some land available, and  
17 we do. We have some very large ports across the  
18 Valley, and our land policy says we will continue to  
19 make lands available for industrial development. It  
20 ends up being 1.5 percent or so of our total land  
21 base, but a very important piece for the economic  
22 engine of the Valley.

23              The next zone is our developed

24 recreation zone. This is -- this is where you will  
25 find your municipal parks, county parks, state parks,  
1 at least the land that we own within those areas. A<sup>73</sup>  
2 lot of those are within that 508,000 acres that we  
3 have transferred -- transferred or sold, but if  
4 there's a strip of TVA land around the state park  
5 it's in this developed recreation zone.

6 If it's an area that we have  
7 transferred to a Tennessee Wildlife Resource Agency  
8 or similar agencies in the other six states, it will  
9 be in those areas because most of those areas are for  
10 boat ramps and that kind of thing, water interface.  
11 It's where our commercial recreation is. It's where  
12 those campgrounds that are on TVA land, managed both  
13 by TVA and entrepreneurs, lands that we have made  
14 available, that's what those areas and those  
15 campgrounds would be in.

16 It's where the TVA -- several of the  
17 TVA managed areas are, where TVA manages day-use or  
18 where TVA manages campgrounds. If it's not on our  
19 dam reservations, it's usually in one of these zone 6  
20 developed recreation areas.

21 It's where we spend capital dollars.  
22 It's where we -- where the concrete is. It's where a  
23 lot of times you're actually having to go out and  
24 spend capital money, TVA's capital money rather than  
25 just base O&M. It's concentrated development of  
1 recreation. <sup>74</sup>

2 Every land-use specialist's favorite  
3 area is our Zone 7's. These are our shoreline  
4 access. We probably do 2,200 actions or so from the

5 watershed teams or the delivery system on our  
6 developed shoreline access areas. That's where we  
7 spend most of our -- a lot of our time. That's where  
8 the 26(a) permits are. There's where all the docks  
9 are, and that's all the private floating docks.

10               It represents, as I said earlier,  
11 5 percent of our land. It doesn't sound like much.  
12 It is 2,100 miles long. It's 21 percent of the  
13 shoreline of the 11,000 miles. That works out -- the  
14 math works out to about 60-foot wide.

15               So we have this 2,100 mile piece of  
16 land, 60-feet wide, through seven states over the  
17 entire Valley that -- you know, it end ups -- it's a  
18 very -- you will see in a few minutes, it doesn't  
19 show up very big on a map, but it's definitely a  
20 place where we spend a lot of our time and energy on,  
21 on our Zone 7 shoreline management areas.

22               This is a lands plan map. Like I  
23 said, at the end of the day this -- this becomes  
24 basically what goes up on the wall, what you talk  
25 about, what you go to. This shows several  
1 different -- this is right out of the Watts Bar plan  
2 approved in November.

3               We have most all zones represented  
4 there. You can see the yellow up there in the top  
5 left, that's the narrow strip that's around the  
6 residential areas. There's 2,100 miles of that  
7 across the Valley. You can see developed recreation  
8 areas.

9               You can see -- on this map you can see  
10 where the dam is located, where the nuclear plant is

11 actually located, where the old Watts Bar Fossil  
12 Plant is located. So all of our zones are basically  
13 represented on this map, but this becomes the heart  
14 and soul of a lands plan.

15 Now, what I want to talk about now are  
16 some things to consider. We have looked at the  
17 293,000 acres comprehensively. We had to do that so  
18 we could talk apples-to-apples and kind of get our  
19 nomenclature down. Like I said, we have had a lot --  
20 over the years we've had a lot of different planning  
21 processes. We have converted the multiple allocation  
22 plans to single allocations to compare those  
23 apples-to-apples.

24 When the land policy was developed,  
25 the Board told us to go out and look at all of the 76  
1 recreation sites that you have and all of the  
2 industrial sites that you have. We did that. That  
3 report has been brought back to the Board to a Board  
4 committee.

5 I won't say the Board approved it.  
6 They were presented it. They were told about it. We  
7 did what they said what they wanted us to do. It's  
8 on the external web.

9 Sensitive resource data is real-time.  
10 Heritage data, and Hill may get into this more than I  
11 care to, but things come on the list, things go off  
12 the list, you know, things are endangered, they  
13 recover, they go off. We have state species listed.  
14 It's very elastic, coming and going. So our data is  
15 real-time, things come on and things go off.

16 Archeology goes out and does a new

17 study or one of the -- some college student does a  
18 dissertation and sends us a paper, that information  
19 goes into our database. So fairly -- while the  
20 archeology is not elastic, the information is always  
21 continuously updated.

22               We have a shoreline management policy.  
23 It told us where the Zone 7's are. It said if you  
24 have these types of land rights, these folks can have  
25 water-use facilities. It's constant. It's not  
1 changing. This is what it is. 77

2               Our job is to find them and go read  
3 all the deeds and find out exactly where they are,  
4 but we know the -- we basically know that the Zone 1  
5 and Zone 7 roughly represents 38 percent of the  
6 entire TVA shoreline and that that's not going to  
7 change much. Like I said earlier, our dams aren't  
8 changing. They are where they are with the areas  
9 around them. Our navigation areas, fleeting areas,  
10 the safety lands, they are not changing.

11              The land policy allowed for some  
12 flexibility on TVA lands planning. It said that you  
13 can change a lands plan off-cycle for three reasons.  
14 No. 1, if you have a piece of land, a green hill over  
15 here, imagine a green hill, and then you have this  
16 nice little TVA strip and you have purchased this  
17 green hillside and you want to have a commercial --  
18 you want to have commercial recreation and you need  
19 access to the water such as for docks, ramps, those  
20 kinds of things, TVA will consider a lands plan  
21 change to make it so that you can have the land that  
22 you invested in be waterfront.

23                   The land policy also said if you did  
24   that for an industry, that if you had this large  
25   industry that come in and wants a 1,000 acres of  
1   back-lying property, there's a small strip of TVA 78  
2   land between it and the water and it needed water, it  
3   needed a barge terminal, it needed a water intake,  
4   water discharge, the land policy is flexible enough  
5   to say that you bring your investment to the table  
6   and we will consider making an off-cycle land plan  
7   change to make you able to have waterfront. Other  
8   than that -- and to implement our shoreline  
9   management policy. Other than that, we're not doing  
10   any more land changes off-cycle. Off-cycle is the  
11   key word.

12                   My attorney is back here. She hags me  
13   because I come up with all of these things that are  
14   implied sometimes, but if we're doing things  
15   off-cycle, there's a cycle, there's a cycle, we have  
16   to be on a cycle if we're going to do something  
17   off-cycle. So I say that the land plan says, or at  
18   least implies, or the land policy says that we imply  
19   that there is a cycle.

20                   It's been 25 years since we have been  
21   to Kentucky. It's been over 20 years at Nickajack  
22   and Chickamauga. It's been close to 15 years on  
23   Wheeler. That doesn't -- that sounds bad when we say  
24   we can't do anything off-cycle.

25                   Before the lands plan or lands policy,  
1   we could do things off-cycle. We could say, okay, 79  
2   okay, okay, we're going to do this. We're going to  
3   consider your request and we're going to go to the

4 Board and ask for a lands plan change, and basically  
5 anybody that walked in the door, you know, here we  
6 went spinning wheels, spending time, not really a big  
7 look at everything, just kind of individually looking  
8 at those types of projects.

9                   When we do one of these lands plans,  
10 it takes somewhere between six years and two and a  
11 half years. Usually four or five parcels are in  
12 play, you know, a million and half spent, four or  
13 five parcels in play. We argue between economic  
14 development. We argue between developed recreation  
15 and natural resource conservation. It's kind of  
16 suitable for all three. Three or four parcels are in  
17 play. That's really what the controversy with the  
18 public boils down to.

19                   Some of our sister agencies, they  
20 don't do district-by-district plans. They do forest  
21 plans, Cherokee National Forest plans, Pisgah  
22 National Forest plans. They don't do Watauga range  
23 of district, Nollichucky range of district, Citico  
24 range of district.

25                   If you go to that web site that we  
1 talked about for industrial, you will see something <sup>80</sup>  
2 that looks a whole lot like a lands plan map. It's  
3 not, it's not a lands plan map, but it is the data  
4 that we have already collected over the 293,000 acres  
5 thinking basically that this is what we think our  
6 lands are all being used for. That's part of the  
7 industrial and commercial and recreation assessment.

8                   At the end of this year, and I  
9 wouldn't commit to fiscal or calendar, but at the end



10 of this year we will have -- 96 percent of our lands  
11 will be in a lands plan. 96 percent of the 293,000  
12 acres will be sitting in one of the multiple types of  
13 lands plans.

14 We have got a wonderful opportunity at  
15 this very moment to talk about, how do we lands plan?  
16 Is it time for a change? Is there something that we  
17 need to do differently? Do we need to get back to  
18 Kentucky in less than 25 years?

19 What are our options?

20 We can continue to do what we're  
21 doing. We can plan our individual reservoirs.  
22 Sometimes we group the smaller reservoirs. Like the  
23 mountain, northeast tributary areas where there's not  
24 a whole lot of TVA land, we group those together.

25 I'm familiar with that process. The  
1 staff is all familiar with that process. Most of our<sup>81</sup>  
2 stakeholders know that process, you know, we're  
3 comfortable. We're fairly comfortably there. And if  
4 you're doing small group, you definitely probably are  
5 giving more attention to that group and to those  
6 reservoirs because that's what -- that's the only  
7 areas that you're talking about.

8 The trouble is we're having to do an  
9 EIS for every one of those. That's a long, drawn-out  
10 process, expensive. We're unable to speak like we're  
11 speaking about 80 percent of our lands being used for  
12 this and that, you know, because it's all in  
13 different methodologies. Our track record is we have  
14 unsuccessful getting around on that cycle.

15 Here's our schedule. What -- if we

16 were -- you can see the ones we're finishing up this  
17 year and the ones that we're supposed to be starting.  
18 And we're not, we're really not jumping in on those  
19 this year, you know, as we go through this process  
20 and seeing if there is something different than we  
21 need to be doing.

22                   If you look at this, you know, it's  
23 going to be another 17 years until we get back to  
24 Mountain Hill, 15 years until we get back to Norris  
25 where a huge set of our land base is, and 18 years  
1 before we get back to Pickwick or Guntersville. You<sup>82</sup>  
2 know, there's something about a cycle missing there.  
3 It's probably an ambitious schedule. It's probably  
4 an ambitious schedule.

5                   We could do a lands planning EIS. We  
6 could then tie all of the individual plans to that  
7 process EIS, doing draft EIS's or environmental  
8 assessments, you know, that's one of our options.

9                   This would -- this would allow us or  
10 each plan -- on each of those we could actually tier  
11 our environmental documentation. It may increase the  
12 frequency that we're able to get around, and we will  
13 be giving specific attention to a certain group.

14                   The cons are that we're still unable  
15 to speak comprehensively about the uses around the  
16 entire Valley. Again, my -- I think we'd probably  
17 get bogged down in the cycle again and that we won't  
18 get around -- that we won't get through the entire  
19 reservoir system in one's career.

20                   Another thing that we can consider is  
21 a comprehensive Valley-wide look at of all of this

22 land. Basically it uses the data that we already  
23 have. It allows us to communicate consistently about  
24 all of these different land uses. It allows for  
25 uniform and consistent and frequent updates, frequent  
1 being maybe 10 years or whatever schedule we put it  
2 on. In a robust economy it may be that we need to  
3 look at it quicker than ten years.

4 In an economy that's not very robust,  
5 maybe we're looking at it a little less frequently  
6 and so the -- but it does allow us to do this  
7 comprehensively and talk about it. Those four or  
8 five tracts that are in play equal 40 tracks across  
9 the Valley. The 1.7 million or so that you are  
10 spending on the EIS, you get the biggest bang for  
11 your buck.

12 There are cons. The specifics are,  
13 you know, our stakeholders may feel like, oh, Boone  
14 Reservoir, Watauga Reservoir, Kentucky Reservoir, a  
15 product of probably a 100 to 1 in land bases, you  
16 know, they may feel left out of the process. So  
17 there's some specifics that may be lost in that.

18 We're going to have -- you know, the  
19 data that we currently have I wouldn't put it out  
20 here on the table and say, right here's our lands  
21 plan and I believe in this because it was rapid. It  
22 was done quickly and we need to truth it. We need to  
23 go through a process to understand it and truth it.  
24 So, you know, we're going to have some focused  
25 staffing to look at that type of information.

1 So the things we need to consider or  
2 what we would like you-all to consider is, do we

3 benefit from the uniformity and consistency of a  
4 comprehensive approach? Does that outweigh the loss  
5 of the specifics? Are there other planning issues  
6 that we need to consider and other ways that we need  
7 to consider?

8                   So with that, we're open for  
9 questions.

10                   CHAIR MR. TOM LITTLEPAGE: Any  
11 questions for Bucky?

12                   This is a scenario where, I guess, the  
13 Council has taken a lot of interest and has provided  
14 some perspective over the years. So you're looking  
15 at primarily to see how this would be integrated into  
16 the NRP in terms of dictating a strategy for the  
17 staff --

18                   MR. BUCKY EDMONDSON: Right.

19                   CHAIR MR. TOM LITTLEPAGE: -- in and  
20 laying out the specific land planning.

21                   Did you also talk about a scenario  
22 which is maybe between these two, for example,  
23 aggregating groups of reservoirs, like tributary  
24 reservoirs versus main stem or you have got watershed  
25 teams set up maybe doing it watershed-by-watershed  
1 zones? 85

2                   MR. BUCKY EDMONDSON: That's a good  
3 option. I mean, that's a -- I think that's within  
4 the reasonable range of alternatives that we could  
5 look at, you know, maybe north, east, south,  
6 something along those ways and some of those.

7                   So there could be other ways. That  
8 would be great information to get back. I mean, it's

9 all within that reasonable range, continue doing what  
10 you're doing, doing something different, find  
11 someplace in the middle.

12 CHAIR MR. TOM LITTLEPAGE: One of the  
13 other things I had, and we have delved into it in  
14 Alabama a little bit, in terms of ground trooping for  
15 land-use planning, satellite imagery or aerial  
16 imagery is very valuable. How do you collect that?  
17 Do y'all do it or do you work in cooperation with the  
18 states and try to update the data that's out there  
19 with regards to imagery?

20 MR. BUCKY EDMONDSON: Of course,  
21 there's a lot of data that people have access to. We  
22 also have a lot of internal fly data. TVA is the  
23 contractor a lot of times or sells that data for  
24 USDA.

25 For others we go do the flying. Our  
1 maps and survey group is probably second to none. We<sup>86</sup>  
2 do a lot of that under contract for other agencies  
3 providing them that information.

4 CHAIR MR. TOM LITTLEPAGE: So about  
5 how often do you have an update to -- just in general  
6 of the imagery across the Valley?

7 MR. BUCKY EDMONDSON: As far as like  
8 1/1000 aerial photography, I can't really answer  
9 that. I think we fly every year, but we fly for  
10 some -- you know, where they are being asked to fly  
11 and some client wants us to actually -- I can't tell  
12 you, oh, every ten years.

13 CHAIR MR. TOM LITTLEPAGE: Okay.

14 MR. BUCKY EDMONDSON: A lot of the

15 data though that I see and utilize, you know, it may  
16 be 2006, 2007 aerial photography, which matches some  
17 of our mapping perfectly. You can overlay perfectly.

18 And you're right, you know, you can  
19 tell a whole lot. So the electronic tools out there  
20 are amazing. The beam, you know, you can get the  
21 obliques off of Google mapping. There are a lot of  
22 things out there that you can utilize, plus ground  
23 trooping, putting troops on the ground.

24 You know, it all can't be done  
25 electronically. There needs to be some things looked  
1 at down on the ground so that -- in all of that data<sup>87</sup>  
2 there's processes that feed back to us into databases  
3 to kind of strategize our needs, but also that tells  
4 us about the tracks of land and helps us in the  
5 future to determine different things about the  
6 specifics of that track.

7 So while lands planning could take a  
8 view backwards, that doesn't mean that there's nobody  
9 out on the ground, you know, there's folks out  
10 looking at those things all the time and looking at  
11 specifics.

12 CHAIR MR. TOM LITTLEPAGE: Okay. Any  
13 other questions from the Council with regards to the  
14 presentation?

15 Okay. Thank you.

16 MR. BUCKY EDMONDSON: Thank you.

17 CHAIR MR. TOM LITTLEPAGE: Are we  
18 ready for --

19 FACILITATOR WILSON TAYLOR: Shannon  
20 O'Quinn.

21 CHAIR MR. TOM LITTLEPAGE: Shannon was  
22 one our tour guides at the last meeting. So we have  
23 had a chance to hear him before.

24 Do you need them to back it up?

25 MR. SHANNON O'QUINN: Yeah. I want to  
1 talk to you about our water resource management work<sup>88</sup>  
2 here at TVA, and that's work that is non-regulatory,  
3 basically work that we do to help meet objectives of  
4 our environmental policy, to improve water quality,  
5 to develop partnerships throughout the Valley, and to  
6 keep track of what water quality changes are going on  
7 with the Tennessee River system.

8 I'm going to talk to you about some  
9 current programs that we implement and throw out some  
10 ideas that we have had of the programs that we may be  
11 able to implement in the future and then talk about  
12 the activities that we implement associated with  
13 those programs.

14 We implement a target watershed  
15 initiative program. We monitor our streams. We have  
16 a growth readiness program, a clean breathing  
17 program, and a shoreline stabilization program.

18 In our target watershed initiative,  
19 that's something that we've spent a lot of time on in  
20 the past few years. That's where we work with  
21 partners throughout -- throughout the watershed to  
22 identify water quality problems and then implement  
23 projects to improve those problems.

24 We target where we work. You know,  
25 there's a lot of places out there that we could work,  
1 but we want to make sure that we work in places we<sup>89</sup>

2 can make improvements. We develop coalitions and  
3 partnerships. We realize that we can't make all of  
4 these improvements by ourselves. We work with these  
5 partnerships to develop plans. We help them leverage  
6 funding. Then we implement these projects.

7 Now, the Tennessee River drainage is  
8 over 40,000 or 41,000 square miles. So that's a  
9 large area to cover. There's basically no way that  
10 we have enough resources to cover all 41,000 square  
11 miles. So we -- again, we try to target where we  
12 work.

13 We look at -- we first look at the  
14 water quality issues in the watershed. We look at  
15 the fish communities. They are a really good  
16 indicator of water quality.

17 Here you see the whole Tennessee  
18 Valley. We have broken it up into 611 hydrologic  
19 units, that's 11 digit hydrologic units. We look  
20 at -- we looked at the stream quality and all of  
21 those hydrologic units. Again, we basically looked  
22 at the fish community.

23 We have a triage approach. We  
24 determine, you know, whether the stream is in a good,  
25 fair or poor condition. We don't really work in the  
1 really good watersheds because they are -- they  
2 already have good water quality. We don't work in  
3 the really poor watersheds because, you know, we can  
4 work there for 10 or 20 years and not ever see a  
5 difference.

6 So we kind of focus in on those areas  
7 in the high, poor, low, fair condition, and those are



8 the pink hydrologic units up here. They are about --  
9 we call them sensitive hydrologic units. There are  
10 about 250 of those. We still realize that we can't  
11 work in all of those hydrologic units either.

12 So we determine whether or not there's  
13 partners that want to work with us, whether or not  
14 there's funding out that that we can leverage to  
15 implement projects, and whether or not TVA has a  
16 role. Maybe people could implement water quality  
17 improvement efforts without us. So we go through all  
18 of that and we determine where we work.

19 And for 2010 we have got 27 watershed  
20 initiatives across the Valley. Over the past five to  
21 ten years we have -- we have had a lot of success  
22 with the water -- these targeted watershed  
23 initiatives.

24 We have on an average leveraged or  
25 worked with hundreds of people that are stakeholders,  
1 leveraged \$2 million a year to implement water  
2 quality improvement efforts, and we have seen water  
3 quality improve. The states have delisted their  
4 streams from the impaired list because of the work  
5 that we're doing.

6 This is just to look at the whole  
7 entire Valley. In 2000 62 percent of those 611 digit  
8 hydrologic units were in good/fair condition and in  
9 2008 68 percent of those hydrologic units were in  
10 good/fair condition.

11 Now, I'm not saying that TVA is solely  
12 responsible for making those improvements, but I can  
13 say that the majority of those hydrologic units that

14 improved we had watershed initiatives in there and we  
15 were working in those hydrologic units. So we feel  
16 like that they have been successful.

17 We have got a stream monitoring  
18 program, like I mentioned before. Again, this is  
19 what we do -- use to target where we work. We  
20 monitor over 500 streams across the Valley looking at  
21 the fish communities. We have got those on a  
22 five-year cycle. So we monitor about 125 sites a  
23 year.

24 We basically collect, analyze, and  
25 share that information with our stakeholders and TVA.  
1 TVA uses this information to help make management  
2 decisions, and other agencies throughout the region  
3 use this information to make management decisions.

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4 We have got one of the most complete  
5 set of long-term monitoring data for this size river,  
6 the Tennessee River system, in the whole United  
7 States. So it's pretty impressive. This is a  
8 picture of some guys out in the mountain stream  
9 chopping up fish.

10 We also have the growth readiness  
11 program, and that's where we work with communities to  
12 help them prepare for growth so we can also have good  
13 clean water quality. Basically, we provide training,  
14 training workshops for these people called growth  
15 readiness workshops, and we focus in on local  
16 community decision-makers, mainly county engineers,  
17 county planners, county administrators, that group of  
18 people, and we give them information about how  
19 unmanaged growth can impact water quality.

20                   We sit down with them and we project  
21 future growth and how that could impact water  
22 quality. We give them tools to help them make  
23 decisions on how they want to develop in the future.  
24 We also provide some funding to help them implement  
25 demonstration projects.

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1                   These are all of the locations that we  
2 have worked in so far across the Valley. With those  
3 workshops over 230 communities attended. They  
4 reviewed their codes and ordinances. About 123 of  
5 those communities are making changes or plan to make  
6 changes to their development rules in the future, and  
7 they have implemented over 57 projects. These  
8 projects are like pervious pavement projects, setting  
9 aside green space, implementing rain gardens, those  
10 type things.

11                   As Bucky mentioned, we have over  
12 11,000 miles of shoreline on reservoirs across the  
13 Valley. And as you can imagine, there's a lot of  
14 wave action out there with boat traffic, the wind,  
15 which creates a lot of erosion problems on our shore  
16 line.

17                   People lose land. Sediment gets into  
18 the reservoir destroying aquatic habitat, and it also  
19 is a threat to cultural resources that are around the  
20 shoreline. So we go out and we identify areas that  
21 are critically eroding and we try to stabilize those  
22 areas.

23                   We use several different techniques.  
24 Bioengineering where we slope the banks back. We put  
25 down filter fabric or coconut fiber logs that over

1 time degrade and it looks more natural. We also  
2 plant vegetation. Sometimes we have to use riprap,  
3 hard armory because that's the only thing that's  
4 going to protect those sites. Since the early 1990's  
5 we have stabilized over 77 miles of stream or  
6 shoreline.

7                   We also implement the clean marina  
8 initiative, and that's where we work with marina  
9 operators across the Valley and help them manage  
10 their operations so it's in a more environmentally  
11 friendly manner. The main goal there is to reduce  
12 water pollution.

13                   We give them information. We provide  
14 them technical support on several different aspects  
15 of operating the marina. We help them with sewage  
16 management, fuel management, solid waste management,  
17 maintenance and repair of boats and their marinas,  
18 storm water management, and public outreach.

19                   If they meet all of the several  
20 aspects of these criteria, then they get certified as  
21 a clean marina. We have over 81 certified clean  
22 marinas across the Valley right now.

23                   Now, I mentioned to you these are the  
24 things that we currently implement. We have set  
25 around the table and we have discussed things that we  
1 could implement in the future, other things like a  
2 water efficiency program, water resource campaigns or  
3 targeted reservoir initiatives.

4                   In a water efficiency program  
5 basically, you know, we would be promoting for the  
6 use of water wisely across the Valley, ways to

7 conserve water. Last year we had -- we implemented a  
8 pilot project where we became an EPA water sense  
9 partner. We got a lot of resources from EPA about  
10 water conservation.

11 We implemented a few workshops that  
12 folks seen on MS for Communities. Those are  
13 basically communities that are required to have storm  
14 water management plans, irrigation professionals and  
15 internally at TVA.

16 Water resource campaigns, these are  
17 mainly projects that are short-term projects that  
18 address stakeholder needs. They could range -- you  
19 know, these campaigns could implement a wide range of  
20 projects, like promoting repair and stream-side  
21 management, creating blue ways, focusing efforts on  
22 TVA lands, storm water management, providing  
23 technical support, basically helping our partners get  
24 organized, develop watershed action plans, leverage  
25 funding and implementing projects. It also could  
1 include maybe a grant program that TVA would develop  
2 and provide funding for people to implement projects.

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3 The targeted watershed initiative  
4 program is real similar to our watershed initiative  
5 program, but our watershed initiative program mainly  
6 addressed or focuses on non-point source pollution  
7 and this would address point-source pollution.

8 You know, our reservoirs have large  
9 water bodies or large watersheds. Most of the -- you  
10 know, most of the pollution includes not only  
11 non-point source but point source in the form of  
12 waste water treatment plants. Now, these waste water

13 treatments plant are regulated, but they are a lot of  
14 times community owned and, you know, communities  
15 don't have the funding to upgrade their facilities.  
16 The states realize that, the regulators realize that,  
17 and they are out there trying to help them upgrade  
18 those facilities.

19                   So we would -- in this program we  
20 would help these communities find money, maybe  
21 provide some money to help communities reduce the  
22 amount of pollution that's going into the streams, a  
23 lot of times maybe above and beyond their regulatory  
24 requirements. Those are just programs that we  
25 thought about as good ideas that we may be able to  
1 implement in the future. 97

2                   Now, there's a lot of activities that  
3 go along with those programs and a lot of them  
4 overlap with these programs. So I am going to list  
5 them all. We implement agricultural best management  
6 practices. We basically work with farmers out there  
7 to help them implement farm plans for rotational  
8 grazing-type projects, cattle exclusion, alternative  
9 water sources.

10                   We also implement bank stabilization.  
11 And, you know, there's a lot of bank erosion, stream  
12 bank erosion out there which puts sediment into our  
13 streams. We would basically go out and stabilize  
14 those stream banks.

15                   In critical area management we would  
16 basically focus on areas that don't have any  
17 vegetation, that has a lot of erosion going on,  
18 creating gullies, those type things.

19                   This says mine land reclamation, but  
20   it's basically abandoned mine land reclamation. We  
21   would reclaim abandoned mine set sites that were  
22   mined before the Surface Mine Reclamation Act.

23                   Basically, companies went in, knocked  
24   off the top of the mountain, took the coal, and  
25   there's not any soil left. So there's not any  
1   vegetation there to stabilize the soil. 98

2                   We would implement organizational and  
3   technical support, again, work with our partners and  
4   stakeholders out there to get organized and implement  
5   projects.

6                   Grant support, again, there could be  
7   an opportunity where folks are already out there  
8   organized and ready to implement projects, and we  
9   could provide some funding to help them implement  
10   those projects.

11                  Recreation, and Jerry will be talking  
12   about recreational activities after while, but, you  
13   know, we could install projects like pervious  
14   pavement around our campgrounds or there might be  
15   erosion control problems on our dispersed recreation  
16   sites.

17                  Shoreline stabilization and riparian  
18   management, that all goes together. We would be out  
19   there protecting buffer zones right beside the  
20   streams, planting trees, those type things.

21                  Solid waste and litter cleanup, those  
22   are activities that can help people get together and  
23   organized and they could clean up a site and see that  
24   they have made some improvement in the area.

25                   Urban best management practices,                   99  
1   again, those are things that control storm water,  
2   rain gardens, vegetative islands in parking lots,  
3   those type of things. It also includes septic tank  
4   repairs.

5                   You may not realize this, but there's  
6   still a lot of people straight piping raw sewage into  
7   the streams. I actually have a story with this  
8   project. I found this site. I was out with a lady,  
9   and I don't know if you-all know Debbie Huffs, but  
10   she used to work with TVA. She focused on education  
11   and outreach work mainly.

12                  One day she decided, well, I will get  
13   out in the field. It was a nice spring day. We were  
14   planting trees along the stream bank. I was up on  
15   top of the stream bank. You can see this is a pretty  
16   vertical stream bank here. I was up on top of the  
17   stream bank with my dibble bar putting holes in the  
18   ground. She was in the stream just reaching over and  
19   putting the samplings in the holes.

20                  So we were walking up the stream and  
21   she kept saying, "Man, there's a lot of sediment  
22   here. You know, I can't hardly move my feet."

23                  So we go up another 50 yards or so and  
24   she's sinking up to her knees.

25                  MR. BILL TITTLE: You must have been  
1   below Chattanooga a month ago.                   100

2                  MR. SHANNON O'QUINN: Anyhow, she  
3   says, "I don't believe I can do this anymore." About  
4   that time she looks down and she sees something white  
5   and she realizes it's toilet paper and she jumps, I



6 mean, this stream bank is 4 feet, she jumps with  
7 waders from the stream bank on top of the stream or  
8 on top of the bank.

9                   Anyhow, that was the day -- you know,  
10 straight pipes are kind of the gray ghost of water  
11 quality pollution. You know, people really don't  
12 think that they exist. They do exist though. That  
13 was the day that Debbie found her a gray ghost. We  
14 did repair this site. We installed a conventional  
15 septic system here. Anyhow, that's my story for  
16 today.

17                   We could also implement water quality  
18 pollution treating programs, wetland restoration and  
19 creation of enhancement programs and other outreach  
20 activities. All of those activities, again, like I  
21 said, they overlap with the programs that I  
22 mentioned.

23                   I stole this from Bucky, the things to  
24 consider. You know, tomorrow you're going to be  
25 asked to provide some comments on all of these  
1   stewardship activities. So I just want you to  
2   realize that TVA's environmental policy does direct  
3   TVA to implement water quality improvement  
4   activities. We already implement several of these  
5   activities out there.

101

6                   Some in the past have been based on  
7 opportunities, you know, people showing up at our  
8 doorstep saying, hey, I would like to do some water  
9 quality improvement work here. Some have been more  
10 targeted.

11                   Throughout the past several years we

12 have realized now that opportunity doesn't always  
13 mean water quality improvement. You know, just  
14 because there's interest in an area doesn't mean that  
15 we're going to be improving water quality.

16 We have seen some success with our  
17 targeted watershed initiatives. We have seen streams  
18 delisted. We have seen our IBI scores for fish  
19 assessment scores go up. So, you know, we feel like  
20 that we have seen some success with the targeted  
21 efforts.

22 We're all the time struggling with  
23 what to do with our water quality work. Do we  
24 continue to implement our efforts as we're doing them  
25 now? Should we increase or decrease the level of  
1 activity that we're implementing now? Should we 102  
2 mainly use the targeted approach or should we  
3 continue working with partners that come knock on our  
4 door for opportunities that exist?

5 So, you know, these are just things  
6 that we have to consider in moving forward. I hope  
7 you-all consider those things tomorrow.

8 So with that, does anybody have any  
9 questions?

10 MRS. RENEE HOYOS: Can you talk a  
11 little bit about the water quality training program  
12 you might be interested in doing?

13 MR. SHANNON O'QUINN: Well, you know,  
14 we have -- we have basically been working in Knox  
15 County in the past few years to help -- you know,  
16 most of the trading efforts have been associated with  
17 point-source pollution, and this would be dealing

18 with non-point solution and point-source pollution.

19                   You know, water quality or trading  
20 efforts basically exist because the state or could  
21 exist because the state would say, hey, you know,  
22 this stream could handle a certain amount of  
23 pollution.

24                   You know, industries have to get  
25 permits. They are out there -- they are out there,  
1                   you know, basically releasing -- releasing a certain<sup>103</sup>  
2 amount of pollution in the stream. If they work with  
3 other industry or activities or like agricultural  
4 non-point source activities in the watershed, then,  
5 you know, they may be able to trade a certain amount  
6 of pollution credits associated with that particular  
7 pollution maybe, you know, nutrients or sediment or  
8 something of that nature.

9                   This is kind of, you know, in the  
10 early stages. It's not necessarily been implemented.  
11 So we have been able to see a lot of success. I  
12 think that this is just one option that we can look  
13 at as an activity that, you know, we may want to  
14 pursue in the future. I'm not saying that, you know,  
15 it's the best or it's the answer to water quality  
16 improvement and protection, but it could be one tool  
17 that is used down the road.

18                   Did I answer what you want?

19                   MRS. RENEE HOYOS: Yes.

20                   CHAIR MR. TOM LITTLEPAGE: Other  
21 questions?

22                   MR. JOHN WILBANKS: Well, it may be a  
23 little bit of ignorance on my part, but looking at

24 your map here, the clean marina initiative, you know,  
25 considering all the mileage on the system it seems  
1 like there are very few of them. Anda had mentioned 104  
2 earlier that this is something that you-all are  
3 starting to crack down on violations and all of this.

4 Is this -- being a clean marina and  
5 being certified, is that the minimum standards? If  
6 the marina is not certified, does that mean they just  
7 haven't gone through the trouble? Does that mean  
8 they are actually polluting or violating a policy?  
9 Can you explain that a little bit?

10 MR. SHANNON O'QUINN: This is -- the  
11 clean marina program is mainly a voluntary program  
12 that we work -- where we work with these marina  
13 operators to meet certain aspects of having a clean  
14 marina. Like I said, waste management, storm water  
15 management-type activities. You know, we work with  
16 these marinas to meet those certain criteria and then  
17 we certify them.

18 Now, this is a -- this came out of a  
19 national-wide -- nationwide campaign. It's not  
20 regulatory. It's not required. You know, these are  
21 things that we just work with, these marina  
22 operators, and they voluntarily implement these best  
23 management practices.

24 It not only addresses water quality  
25 issues, but it helps them attract business in the  
1 future. So they are interested in implementing these 105  
2 types of best management practices to become a  
3 certified clean marina.

4 MR. JOHN WILBANKS: But if someone is

5 dumping sewage into the lake or gasoline is being  
6 dumped, you know, or is leaking or whatever, don't  
7 you-all have the authority to go in and make them  
8 clean that up?

9 MR. SHANNON O'QUINN: We don't have  
10 the authority to do that.

11 MR. JOHN WILBANKS: You don't have  
12 that?

13 MR. SHANNON O'QUINN: Huh-uh. No.  
14 The state -- you know, there are state regulations  
15 that they have to abide by, but a lot of times it's  
16 hard -- you know, the state regulators aren't out  
17 there every minute. So it's hard for state  
18 regulators to actually catch people in these marinas  
19 straight piping or dumping any type of waste into the  
20 reservoirs.

21 FACILITATOR WILSON TAYLOR: So them  
22 polluting, say, Fort Loudoun or whatever reservoir,  
23 there's not much you can do about that, is that what  
24 you're saying?

25 MR. SHANNON O'QUINN: Well, we don't  
1 have any regulatory authority to do anything about  
2 it, but we are addressing it through this voluntary  
3 program.

4 DFO ANDA RAY: There's a couple of --  
5 the marinas that I was talking about are the ones  
6 that they are using TVA land to have a commercial  
7 business, and there's some requirements in their  
8 contract about their performance and safety and what  
9 they are allowed to do and that was the compliance.  
10 We do have some authority if they are breaching their

11 contract.

12                   Outside of that, this is voluntary,  
13 like Energy Star, you know, there may be buildings  
14 that are Energy Star, but unless they take the  
15 initiative to go through that certification they  
16 don't have it.

17                   This is TVA primarily driven to let  
18 them fly that clean marina flag. TVA is seriously  
19 considering whether that's our core business or not.  
20 So that's part of what the discussion in the NRP will  
21 be. Should we up the ante on that and do that more  
22 often?

23                   And we do report to the state. If  
24 we're out there, we will report to them if see what  
25 we think is a violation or to the Coast Guard if they  
1 see those issues. We don't have any authority to <sup>107</sup>  
2 enforce. So it's an issue. It's definitely an  
3 issue.

4                   MR. JOHN WILBANKS: It really degrades  
5 the recreational experience on your land to have  
6 this. I'm glad to see that you're talking about  
7 increasing vigilance over the ones that are on TVA  
8 property is what you were saying earlier, right?

9                   DFO ANDA RAY: Uh-huh.

10                   FACILITATOR WILSON TAYLOR: Karl.

11                   MR. KARL DUDLEY: Yes. Help me  
12 understand. Is there a cost sharing of these water  
13 quality programs on some of these things?

14                   MR. SHANNON O'QUINN: Yes.

15                   MR. KARL DUDLEY: Just one example,  
16 like the person with the septic tank, did they pay

17 for that septic tank or did --

18 MR. SHANNON O'QUINN: They actually  
19 paid 75 percent of the cost of that septic tank. We  
20 worked with a non-profit organization to write a  
21 grant to get the additional 25 percent of the cost of  
22 that septic system.

23 So, you know, this was a watershed  
24 initiative. We had a plan. We realized that this  
25 was a problem in the entire watershed. So we wrote a  
1 grant. We got a half million dollars to address 108  
2 several water quality issues, and septic system  
3 repair was one of them. So the resident did have to  
4 pay 75 percent and the grant covered the remainder of  
5 the cost.

6 A lot of times what we run into is  
7 these -- the residents are low-income residents and  
8 they really don't have the funding to install a  
9 septic system. There's basically no judge. It's  
10 illegal. There's no judge in the country that's  
11 going to kick somebody out of their house.

12 So what we're doing -- what we were  
13 doing there was basically helping them get a septic  
14 tank and improving water quality.

15 MR. KARL DUDLEY: What about shoreline  
16 stabilization, is the property owner involved in  
17 sharing the cost of that?

18 MR. SHANNON O'QUINN: Well, you know,  
19 these particular sites are on TVA land. So we  
20 would -- we would -- actually, you know, a lot of  
21 times we may work with a partner though, another  
22 agency partner. I say TVA land, but it might be on

23 a -- like in a park or something of that nature  
24 where, you know, somebody else is managing the area.  
25 So, you know, we may work with the park or the state  
109  
1 to help stabilize those shoreline areas.

2 MR. KARL DUDLEY: Can you give me on  
3 an annual basis just a ballpark of how much does TVA  
4 spend on water quality programs?

5 MR. SHANNON O'QUINN: In the  
6 ballpark -- probably in the past a -- in the recent  
7 past around \$2 million for these type of efforts.  
8 That includes labor and actual funding.

9 MR. KARL DUDLEY: Okay. Thank you.

10 DFO ANDA RAY: And that is an issue.  
11 In the big picture, when TVA lost appropriated funds  
12 we were required, and that's why this group was set  
13 up, we were required to continue to fund the  
14 stewardship activities.

15 Right now we report about 150 million  
16 where I think about over 100 of that is primarily  
17 reservoir operations, primarily the dams and  
18 hydro-generation. So that amount hasn't changed  
19 significantly since we lost funds in 2000. It  
20 doesn't go up with inflation. So TVA will always  
21 have a certain amount.

22 It's how do we tie this? Should we  
23 put more in there or less in there?

24 Actually, what you see is that these  
25 natural resources are degrading. We're not able to  
110  
1 keep up. When they put in a trail, we can't keep it  
2 up. If you stabilize the lands, especially with a  
3 working reservoir with the raising it up and down,



4 erosion is going to be there.

5                   What I think that Karl is getting to  
6 is, you know, we need to make sure we know where the  
7 revenue is coming from. We're either borrowing it or  
8 it's coming from rates.

9                   So how do we make sure that there's  
10 not certain people getting too much more of an  
11 advantage over others and that the whole public is  
12 benefitting from that?

13                   I have a question. Am I allowed to  
14 have a question?

15                   FACILITATOR WILSON TAYLOR: You are.

16                   CHAIR MR. TOM LITTLEPAGE: You have  
17 the floor.

18                   DFO ANDA RAY: Did you want to follow  
19 up?

20                   MR. KARL DUDLEY: No. That's fine.  
21 Thank you.

22                   DFO ANDA RAY: And I think I was  
23 supposed to mention it in my slides, and I don't mean  
24 to put you on the spot, but part of the environmental  
25 policy, in addition to water quality, talks about the  
1 resources in a bigger picture. There were two other<sup>111</sup>  
2 aspects you didn't touch on that, but you need to  
3 help us understand if that's included in the natural  
4 resource evaluation.

5                   Part of the quality is the impact of  
6 our operating plants on the thermal discharges on the  
7 water quality and is that included as part of this  
8 natural resource plan?

9                   And then the second was water

10 conservation, not only -- I think TVA says in the  
11 policy that we're going to take action to demonstrate  
12 water efficient -- efficient use of water, as we do  
13 efficient use of electricity.

14                   So can you address those two? You  
15 didn't quite touch on them in the water programs and  
16 initiatives, but I think that's part of the  
17 environmental policy.

18                   MR. SHANNON O'QUINN: Yeah. As far as  
19 operations and temperatures, that is not included in  
20 the natural resource plan or it has not been included  
21 in the natural resource plan.

22                   We specifically said that up front,  
23 you know, as we were developing the plan that the  
24 operations, that's mainly covered in the Reservoir  
25 Operations Study which was done a few years back.

1                   The other question we were basically<sup>112</sup>  
2 addressing in the water efficiency program that we  
3 have -- we piloted a project last year in water  
4 efficiency, but it's not been a program that we have  
5 implemented in the past. So we have basically worked  
6 with partners and we work with partners throughout  
7 the Valley to find ways to, you know, get the word  
8 out on how to conserve water in the future.

9                   Also, we were going to look at  
10 internal water efficiency efforts as far as maybe  
11 addressing our recreational facilities, things of  
12 that nature, but, you know, we just -- that is  
13 something that we would very much like to do in the  
14 future. It's just something that we haven't done in  
15 the past. So that's -- you know, that water

16 efficiency program covers that aspect of the  
17 environmental policy.

18 DFO ANDA RAY: And the stakeholder --  
19 this Regional Resource Stewardship Council  
20 stakeholder group, if they think there needs to be  
21 more emphasis in that area, that would be a comment  
22 that they would make to you?

23 MR. SHANNON O'QUINN: Yes.

24 CHAIR MR. TOM LITTLEPAGE: Just kind  
25 of following that topic, one of the things that also  
1 wasn't mentioned was the drought aspect and looking<sup>113</sup>  
2 at how the system stakeholders respond to drought  
3 conditions and drought operations.

4 I'm assuming that part of those direct  
5 drought operations are part of the reservoir plan and  
6 not included, but to the extent you look at  
7 communities and working with them on managing growth  
8 and preparing for growth and encouraging water  
9 efficiency operations, is that -- the aspect of being  
10 prepared for drought and planning for drought, is  
11 that built into some of this?

12 MR. SHANNON O'QUINN: Yes, that's  
13 definitely built into that water efficiency program.  
14 I guess I didn't go into all of the detail in that  
15 program.

16 You know, again, it's kind of a pilot  
17 that we implemented last year. It could definitely  
18 grow in the future, and we can tailor it to what we  
19 need or our stakeholders needs in the future.

20 So when we gave those workshops last  
21 year, we definitely addressed drought conditions and

22 how we could deal with drought conditions.

23 CHAIR MR. TOM LITTLEPAGE: It appears  
24 like you're kind of feeling your way along in terms  
25 of working with entities on non-TVA lands that have 114  
1 watershed impacts, have operations that have  
2 watershed impacts and trying to determine an  
3 appropriate level of resources or activities because  
4 those operations do directly impact certainly water  
5 quality and overall watershed health.

6 MR. SHANNON O'QUINN: Yes. I guess  
7 this particular piece of the watershed or the natural  
8 resource plan is a little bit different than the  
9 other portions because it is -- a lot of the  
10 activities are off the reservoirs and outside, you  
11 know, off TVA lands and those type -- you know, those  
12 things, and, you know, we're up in the watershed  
13 addressing water quality issues.

14 CHAIR MR. TOM LITTLEPAGE: I guess I'd  
15 just throw that out for us all to think about that as  
16 we look at this what are the appropriate levels of --  
17 for us to represent various interest areas or  
18 stakeholder groups to look at how TVA should be  
19 operating or expending money on with a focus of  
20 non-TVA managed land activities, I'd throw that out  
21 for you to be thinking about it.

22 Any other questions for Shannon?

23 Thank you, Shannon. Very good.

24 FACILITATOR WILSON TAYLOR: So let's  
25 talk about a five- to seven-minute break here. We 115  
1 have got one more speaker, and rather than working  
2 through lunch we will listen to the speaker and then

3 we have lunch and you can just talk to each other at  
4 lunch rather than listen to a speaker. So let's take  
5 about five to seven minutes and get back as quick as  
6 we can.

7 Thanks.

8 (Brief recess.)

9 CHAIR MR. TOM LITTLEPAGE: If we could  
10 get everybody to start working their way back.

11 FACILITATOR WILSON TAYLOR: Our next  
12 speaker is Hill Henry, and Hill's going to talk about  
13 the proposed implementation activity. After that  
14 we're going to convene behind this room for lunch.

15 MR. HILL HENRY: I'm sorry you guys  
16 are stuck with me right before lunch because,  
17 unfortunately, I have the longest presentation. So I  
18 will try to make it nice and interesting, and we will  
19 go from there.

20 Can everybody hear me okay or do I  
21 need to speak up? We're all right. Good.

22 My name is Hill Henry. I am in --  
23 And, I'm going to use one of your tricks.

24 DFO ANDA RAY: There you go.

25 MR. HILL HENRY: Hi, my name is Hill  
1 Henry. I'm an endangered species biologist here at  
2 TVA. I have been here for about 15 years. Basically  
3 what I am going to do today is talk about the natural  
4 resource management aspects of the NRP.

5 Like I said earlier, it is pretty  
6 lengthy. We have got a lot of activities to go over.  
7 So I will just try to touch on them briefly, and then  
8 tomorrow get when we get into our section or breakout

9 section related to this topic we will have further  
10 discussion, if you like.

11 Okay. So basically I am glad you're  
12 here because we're looking for input from you guys,  
13 and what I am going to do is present some of the  
14 activities that we have identified up front to  
15 consider and let you hear those and then see if you  
16 have got any additional input. We're really curious  
17 about what you have to say.

18 So the natural resource management  
19 section of the NRP has basically two objectives.  
20 We're going to be defining resource management  
21 activities in the document and then we're going to  
22 develop a range of options of these management  
23 activities. What I am going to do is walk through  
24 those individually.

25 Here we go. As you can see, the list  
1 is long. What I have tried to do is group these into  
2 little components so that we can get through them a  
3 little bit quicker. The primary components I want to  
4 talk about first are these three, access controls and  
5 lands protection, access roads and parking areas, and  
6 boundary maintenance.

7 I'm kind of grouping those together  
8 because these are basic stewardship activities that  
9 everyone who manages land has to go through. You  
10 have got to have your boundaries marked so you know  
11 where you are and you can identify encroachments with  
12 clearly marked boundaries. In doing that you're able  
13 to protect your natural resources on the parcels and  
14 the TVA accesses that are associated there as well.

15                   In terms of access control and roads  
16   and parking, basically you're concentrating the  
17   access points to specific areas so that you can  
18   invite the public to the property but you can do it  
19   in a way so that it doesn't damage your resources  
20   that are there that you are trying to protect. Okay.  
21   That's sometimes a very delicate balance that you  
22   have to weigh.

23                   The remaining of the activities that I  
24   have on the list I am going to group into the  
25   following categories, and those categories are the  
1   regulatory compliance, anything that has regulations<sup>118</sup>  
2   associated with it. Resource management, these are,  
3   you know, primary activities that are on the ground.  
4   Then we're going to talk about planning activities  
5   and communication and partnerships. As you will see,  
6   the remaining items will fit into those quite  
7   readily.

8                   Regulatory compliance, now, this is my  
9   background so I can -- it doesn't sound like somebody  
10   would get excited about regulatory compliance, but I  
11   actually do. It's what I do on a day-to-day basis.  
12   It's kind of fun actually, believe it or not.

13                   We're going to be looking at  
14   endangered species consultation, endangered species  
15   management, monitoring. We're going to be looking at  
16   non-native invasive plant management. We're going to  
17   be looking at one of our primary tools that we use in  
18   compliance for all of our actions, and that's the TVA  
19   natural heritage database. It's a very powerful  
20   tool. We're also going to talk about wetland

21 regulations. Again, all of these have regulatory  
22 backing.

23                   Endangered species consultation, TVA  
24 complies with the Endangered Species Act, Section  
25 7(a)(2) through consultation. Basically in that 119  
1 section you're assessing the impacts of your actions  
2 on an endangered species and ensuring that it does  
3 not harm or jeopardize the existence of that species.  
4 It's a process that every federal agency has to go  
5 through.

6                   We use advanced techniques to get this  
7 done to achieve this compliance. We have a lot of  
8 expertise on staff. We have biologists that deal  
9 with animals. We have wetland folks that deal  
10 wetland issues, that sort of thing. We have  
11 botanists that deal with plant issues, plant being  
12 the plants and not facilities.

13                   Okay. Basically, we have these  
14 internal processes that we develop at the  
15 programmatic level at the very top and then we work  
16 them down all the way through the organizational  
17 levels. So that way the people that are on the  
18 ground doing the work, they know what they are  
19 looking out for when they get out there on the  
20 ground.

21                   It's taken a long time to get that  
22 engrained into TVA's process, but it's -- I mean, I  
23 have been here 15 years and it's taken all of that to  
24 do it, but, you know, we have been pretty successful.

25                   So basically it -- let's say they are 120  
1 going to go out and put in this transmission line or



2 maintain this transmission line, what do they do?

3                   Well, what they do is they send us a  
4 package that has a route identified on it. We use  
5 our database to figure out what resources are there,  
6 and then we identify those resources and get the  
7 information back to the guys on the ground. It goes  
8 to their managers and works their way down to the  
9 guys that are actually on foot, and they will have a  
10 map in hand and they will know where to look out for  
11 resources. Okay. It's a pretty neat process.

12                   Endangered species management, this is  
13 a different section of the Endangered Species Act.  
14 Section 7 is the portion of the Act where you're  
15 basically outlining the federal responsibilities, the  
16 responsibilities for federal agencies.

17                   So Section 7(a)(2), that's the last  
18 Endangered Species Act section I will mention for  
19 you. When we talk about endangered species  
20 management, basically we are managing endangered  
21 species that are on and reside on TVA lands.

22                   A primary example that I am going to  
23 discuss are gray bats. Now, earlier -- later on  
24 today we're going to go out in the field, right?  
25 We're going to go to Norris Dam. Well, this is  
1 Norris Dam Cave right here. We're not actually going  
2 to go see this structure, we will be across the river  
3 from it, but you will see where it is and you will  
4 see the management challenges that we often encounter  
5 when dealing with these types of resources.

6                   It's up on a bluff. The question is,  
7 how do you get the heavy steel up there and how do

8 you implement that protection activity safely without  
9 harming the staff?

10 Okay. The gray bats, in particular, I  
11 am just going to pick this animal, we -- if you look  
12 at the map in the middle, the map in the middle shows  
13 the distribution of that animal in our power service  
14 area. It's throughout the power service area for the  
15 most part. So there is hardly a review that we ever  
16 get to where we don't have to mention or address an  
17 issue with this species. It pops up all the time.  
18 So we have to deal with that on a routine basis.

19 When our folks are out there doing  
20 on-the-ground activities, whether it's maintenance or  
21 harvesting, that type of thing, they have to  
22 encounter -- they often encounter a species and they  
23 have to be able to address the potential impacts.

24 So what we have to do as a federal  
25 agency is come in and manage these resources. We  
1 have several lands on -- caves on TVA lands that are <sup>122</sup>  
2 used by this animal, and the populations can range in  
3 size from 300 individuals to about 150,000  
4 individuals in one cave. That's a lot of animals in  
5 one resource. If you impact that resource you have  
6 the potential of pretty much jeopardizing that  
7 species or a large portion of it. So we have to  
8 treat that very delicately.

9 The way we manage for these species  
10 are to monitor their population numbers to make sure  
11 that they are protected and they are doing well and  
12 they are thriving. We also protect them. For this  
13 particular species we have put up these cave gates to

14 reduce human disturbance because they are very  
15 sensitive to human disturbance. Then we also try to  
16 enhance populations. I will show you how we do that.  
17 I will discuss that with the next group.

18                   There we go. This involves endangered  
19 species monitoring. Again, we go out and we count  
20 how many of these individuals are occurring in a  
21 given spot. A lot of them are in TVA's -- are only  
22 in TVA's influence.

23                   Like this plant up here, the Ruth's  
24 Golden Aster, it only occurs in two rivers in the  
25 world, that's the Hiwassee River and the Ocoee River  
1 in one county of the State of Tennessee. Okay. 123

2 Those rivers are our tailwaters. So we have the  
3 potential to either benefit this species or harm this  
4 species.

5                   It's kind of an odd little plant. It  
6 lives on the boulders out in the creek and in the  
7 river itself. So it actually needs the flooding  
8 events to come through there and blow out the woody  
9 vegetation and it thrives on those boulders, but if  
10 we don't manage our water releases in a good way it  
11 could actually harm this species.

12                   So often times it -- this is a good  
13 example of how we also work with other agencies. We  
14 have to work hand-in-hand with the Forest Service in  
15 managing this plant because they own the land  
16 adjacent to the river. So we work with them all the  
17 time to do that.

18                   We have other species, like the fishes  
19 you see here in the green picture plan, and we have

20 to monitor those based upon commitments that we have,  
21 environmental reviews, and that type of thing. All  
22 together we currently monitor six species of  
23 threatened and endangered species, 16 rather.

24 Okay. TVA natural heritage database,  
25 this is our primary tool for endangered species  
1 compliance for the whole agency, I want to stress 124  
2 that. If you think back to -- is everybody familiar  
3 with the snell darter and the Tellico dam issue?

4 Well, because of that we -- our people  
5 before me obviously developed a process. They were  
6 looking at how the nature conservancy was developing  
7 these state heritage programs, natural heritage  
8 programs, and they said, wow, that's a really good  
9 concept. Why don't we as an agency get involved in  
10 that and develop our own database?

11 Our database is one of three regional  
12 databases that includes more than one state and ours  
13 includes seven. So the database we developed was in  
14 1976 because of the snail darter issue, and we're in  
15 this group of heritage programs that are not only in  
16 the United States and Canada but also in Central  
17 America and South America. So it's a standardized  
18 process that's used throughout the -- those areas.

19 In terms of the U.S. and Canadian  
20 programs, we're ranked fifth out of 68 heritage  
21 groups in terms of the number of elements that we  
22 track, elements being the species. Okay. So we're  
23 pretty -- we have got a pretty good program there.

24 It's maintained by biologists,  
25 zoologists. We have got the technical staff there

1 for the different disciplines to assess those -- to  
2 take care of that database and to use it to assess  
3 the impacted species.

4 In terms of the number of species we  
5 work with, we have got over 3,000 plant and animal  
6 species that we deal with, not all of those federal,  
7 only 180 of those are federal, but we also have state  
8 listed species. Species that are considered rare and  
9 uncommon may not have an official status. We assess  
10 the impacts to all of those during our environmental  
11 reviews.

12 Basically, this database is  
13 state-of-the-art. We incorporate the data into the  
14 database. We get that from state heritage groups.  
15 We get it from museums and from data that we have  
16 acquired while we're out in the field.

17 We then take that information and  
18 supply it to the operations level, to the folks that  
19 are out on the ground after they have been trained on  
20 how to use that data. We don't just give them the  
21 data and say, here, don't hit these dots out here on  
22 the map. They actually have to be trained on how to  
23 interpret that data and have a biological background.

24 The next activity we will talk about  
25 is wetland protection monitoring. Again, this is

1 tied to a regulation, Section 404 of the Clean Water  
2 Act. Basically what we do is we have a database of  
3 all the wetland polygons throughout the power service  
4 area. If I were to put that on the screen up here,  
5 it would cover the whole power service area, just  
6 basically fill it in because there are wetlands all

7 throughout there. We somehow have to get our work  
8 through there so that we avoid the wetlands.

9                   So to always avoid them what we have  
10 to do is work with our regulators to figure out how  
11 we can potentially cross a wetland. Sometimes we do  
12 actually reroute corridors to avoid them when  
13 possible.

14                   We use this database and the  
15 information during our lands planning processes. We  
16 use it for compliance. We also -- it also factors  
17 into our natural areas management because some of our  
18 natural areas have wetlands on them.

19                   In terms of monitoring, we monitor 56  
20 wetland sites on seven reservoirs. We also  
21 participate in wetland mitigation maintenance as  
22 well.

23                   Invasive species can be very  
24 detrimental to natural ecosystems as you saw in that  
25 sequence of photos there. That's kudzu. I am sure  
1 everybody is familiar with kudzu. We have a variety<sup>127</sup>  
2 or a number of invasive plant species that are in our  
3 power service area. All land agencies, including  
4 TVA, are struggling with how to deal with this  
5 Executive Order, Executive Order 13112, on dealing  
6 with invasive species on your lands. We're all  
7 trying to figure that out.

8                   So we discussed different approaches.  
9 You're handling it this way. We're handling it that  
10 way. Let's figure out the best way to handle that.  
11 There's guidance out there on what to do. So we're  
12 working through that.

13                   We want to take advantage of this NRP  
14 process to determine how best to do that, how to meet  
15 the commitments under this Executive Order. It also  
16 has the opportunities for partnerships and  
17 collaboration with other groups as well, but we need  
18 to address it at the programmatic level.

19                   Okay. Now, we will switch over to the  
20 activities that are our resource management  
21 activities. As you can see, we're going to cover a  
22 lot of ground in this topic. Some of them I have  
23 actually moved to the latter part of the presentation  
24 to give them a little more focus.

25                   So we will start with this group. 128  
1   Agricultural and open lands, TVA has over 7,000 acres

2   of agricultural licenses out there. These are  
3 licenses -- agreements that we get involved with  
4 private entities to come in and row crop these  
5 properties or they can also use them for hay and  
6 things like that.

7                   Historically, these are lands that  
8 were used for cattle and things of that nature. We  
9 have pretty much gotten cattle off of those types of  
10 lands. We allow the farmer to come in and farm these  
11 areas. This is a local benefit to where these sites  
12 are located through aggregate business. The local  
13 farmer gets to come in and do his job out there and  
14 take the food or the crop away, and that's good for  
15 business in the area.

16                   We also work with these farmers to  
17 enhance these lands because, you know, when you look  
18 at wildlife management you consider a row crop area

19 to be a biological desert. It's good for a food  
20 source but from a biological standpoint there's not a  
21 lot there.

22 So what we try to do, and this is what  
23 other agencies do as well, several state agencies, is  
24 try to put in vegetative buffer zones and to provide  
25 enhanced cover for wildlife. We also use those  
1 resources, vegetative buffer zones, to buffer 129  
2 wetlands that may be adjacent to a field so that  
3 you're not getting the runoff from the field into the  
4 wetland. We try to incorporate those practices as  
5 well to improve water quality.

6 We have got a wildlife -- a federal  
7 wildlife refuge down in North Alabama, Kit Cave  
8 Wildlife Refuge. We own a cave opening on TVA land,  
9 but the cave passage goes back behind on to private  
10 land. It used to be private land until the Fish &  
11 Wildlife Service came in and purchased it.

12 Then they put in warm season grasses  
13 in that area. They took away the cotton fields and  
14 put in warm season grasses because that area is  
15 popped with openings that feed water into the cave  
16 system where we have rare fishes where that fish is  
17 only found in that one cave in the whole world. So  
18 the Fish & Wildlife Service came in and bought that  
19 back outlying land and now we manage those two units  
20 together collectively. It's a very good partnership.

21 Aquatic ecology, when I first looked  
22 in the NRP options I thought, why are we looking at  
23 aquatic ecology, that's something, but it really is a  
24 concept that I learned about when I first got here.



25 It's pretty novel, but it's very interesting.

130

1 Consider the Kentucky Reservoir. Are  
2 any of you guys from that area by chance around the  
3 Kentucky Reservoir? It's a massive reservoir and  
4 it's very shallow. In a winter drawdown we pull the  
5 water down and it exposes these huge mudflats that  
6 are very extensive.

7 In fact, at a full summer pool you can  
8 go into some of these embayments and you can be a  
9 good mile and a half away from the shore but you can  
10 get out of your boat and walk to the shore. It's  
11 that shallow.

12 So these shallow embayments are  
13 basically nurseries for fish. The fish have to have  
14 structure in which to have the nurseries around so  
15 that, you know, it provides protection.

16 So what we have are these shorelines  
17 that have vegetation along the edge that get  
18 inundated during the spring rains. The fish run in  
19 there and they feed in that nursery and that  
20 vegetation, but a lot of times that vegetation  
21 doesn't make it over the long term over numerous  
22 years. That can have an impact on the fisheries  
23 there.

24 Kentucky is known for its crappie  
25 fishing. People come from states all around to come  
1 fish there during crappie season. It's really, 131  
2 really good. So we have got an opportunity here to  
3 work with other agencies to do selective plantings of  
4 species that can withstand that inundation and plant  
5 those plants out there.

6                   The bottom left-hand corner shows  
7 Cypress trees that we planted decades ago that are  
8 still there. They are able to withstand that  
9 inundation and it provides a nursery for these fish.  
10 So this is something we want to consider in the NRP.

11                   Do we want to become involved in these  
12 type of activities working with the states putting in  
13 fish attractors and doing selective plantings and  
14 that type of thing? You know, we want to ask you  
15 about that and see what you think about that.

16                   Another topic that's pretty prevalent  
17 out there in the Kentucky Reservoir area are  
18 dewatering units. These are basically a series of  
19 dikes, dikes, you know, levies, and water control  
20 structures in low-lying areas that frequently flood.  
21 Decades ago these areas used to be really bad about  
22 holding water so long that mosquitos would come in  
23 and we would have to deal with diseases that were  
24 related to the mosquitos being there. That doesn't  
25 seem to be as much of a problem these days.

132

1                   We have several relationships with  
2 state and federal agencies to where we go in and  
3 manage these water areas by using the dewatering  
4 units, the pumps or the gravity control structures  
5 that allows us to pull water out of those fields  
6 early. Then the state agency will come in and plant  
7 road crops in those fields. As they develop later on  
8 we will let the water go back into those fields and  
9 that provides water for that habitat. This is a big  
10 deal over in that area.

11                   Basically, this helps TVA meet the

12 objectives of the national water fowl plan, and it  
13 basically elevates that issue up to a significant  
14 national level. The water fowl plan is the national  
15 initiative that we're involved in through that  
16 process and are partners.

17 Dispersed recreation, later on Jerry  
18 Foust is going to talk to you guys about formal  
19 recreation.

20 Is that the correct term?

21 Okay. I'm going to discuss dispersed  
22 recreation. Basically, we're giving recreation  
23 opportunities to folks and they can come out and  
24 recreate on our properties and in the waters around  
25 the property as well.

133  
1 Basically, for dispersed to be defined  
2 as a dispersed recreation, these are not confined  
3 areas where you have developed resources. It's  
4 basically passive recreation, like bird watching or  
5 fishing or hunting, that type of thing.

6 Now, it can involve improvements if we  
7 do find issues that need to be resolved. So during  
8 the NRP we're going to have this planning process  
9 where they are going to be able to go out and assess  
10 the condition of these dispersed rec areas.

11 You know, are we -- do we have any  
12 health and safety issues that need to be addressed or  
13 any resource damage, like shoreline erosion or that  
14 type of thing that we need look out for?

15 It's a quantitative assessment. When  
16 I look at this assessment that they developed I was  
17 really impressed in the quality of it and how

18 rigorous it was. It's a really good thing.

19                   Animal control, that sounds like an  
20 odd topic. Some folks say it's a nuisance, animal  
21 control. Well, it all depends on how you look at the  
22 animal.

23                   From a wildlife biology standpoint, I  
24 think that beaver dams are awesome because they  
25 create really good habitat for water fowl and other  
1 resources. They also can create problems when they<sup>134</sup>  
2 are on the barges of TVA lands and the flooding banks  
3 off on the private landowners.

4                   It can inundate structures, buildings,  
5 that type of thing, but it can also inundate their  
6 timber and kill their timber. So, you know, we have  
7 had to deal with that issue a long time at TVA. I'm  
8 sure the other agencies deal with that as well. So  
9 we have got to use this process, the NRP process, to  
10 determine how we want to deal with those types of  
11 issues.

12                   Avian issues, this is a really big  
13 deal that TVA has to deal with, and I'm sure other  
14 utilities do. Basically, we have reliability issues.  
15 We have to maintain a certain level of reliability in  
16 terms of our transmission of electricity. Okay. We  
17 have got to keep the power on.

18                   We can't have circumstances where we  
19 don't manage for a resource that can come in there  
20 and knock that power out. When that happens and it's  
21 an unmanaged event like that, we actually get fined  
22 when that happens, and those fines can add up really  
23 quickly.

24                   So what we try to do, we're trying to  
25 be proactive. This is a new thing that we're trying  
1 to develop. What we do is we have a biologist that<sup>135</sup>  
2 goes up in a helicopter with the transmission line  
3 folks on problematic lines where they have had  
4 several outages due to birds.

5                   What happens is you get these  
6 aggregation of vultures. They will get on the  
7 structure and they will defecate on the insulators  
8 and the insulators don't work anymore and you get an  
9 outage, boom. It's kind of an odd thing, but it  
10 happens on occasion.

11                   So what we try to do first is  
12 non-lethal measures. We try to go in and put in  
13 these buffer -- these little buffer shields. You can  
14 see them on top of the structure there. That  
15 basically creates a platform that covers the  
16 insulators so the birds can't do that and result in  
17 an outage.

18                   We basically go out and try to predict  
19 where these areas are going to be on the problematic  
20 lines and then the power guys will go in and install  
21 these things and try to resolve the problem. We're  
22 just trying to be more proactive in that  
23 circumstance. It's working out pretty well.

24                   In some cases we do have to use  
25 mortality types of activities. For instance, we have<sup>136</sup>  
1 a lot of black vultures, turkey vultures that  
2 aggregate below our dams. They will get on people's  
3 cars and they will pull the weather stripping out of  
4 the cars around the windows and actually damage

5 people's automobiles. People don't like that  
6 obviously.

7                   So in those circumstances what we  
8 would have to do, we don't do those types of controls  
9 ourselves. We bring in the proper regulatory agency  
10 to handle those situations.

11                   Trails, TVA has approximately 9 miles  
12 of trails on our lands. Most of these trails are on  
13 natural areas, some of which have been developed with  
14 partners. We have a very intense -- some trails have  
15 a very intense group of volunteers that love those  
16 trails. They get out there and they help us maintain  
17 them. Not all of them do, but some of them do. The  
18 Muscle Shoals reservation is an example of that. We  
19 have very active partners out there.

20                   Basically, we have to get involved  
21 when we're developing trails in the planning aspect  
22 to try to figure out where they are. As we're  
23 routing trails, we route them away from sensitive  
24 resources so that we're not impacting those. The  
25 Fish & Wildlife Service watches us closely to make  
137  
1 sure that's the case. We like to put in  
2 interpretive-type structures and things like that to  
3 educate people about the animals out there.

4                   Wildlife habitat management, I have  
5 touched on this a little bit already. Basically,  
6 it's a process of putting in selective plannings,  
7 agricultural buffers and manipulating habitat to  
8 benefit wildlife. That's basically it in a nutshell.  
9 TVA does this. Other agencies does it as well.

10                   What we try to do is get involved with

11 the Wildlife Habitat Council. They are a third-party  
12 that comes in and certifies programs. Basically,  
13 when they see a situation that is an exemplary  
14 wildlife habitat project they give you certification  
15 for it.

16 We have been able to achieve some of  
17 that. We have four projects that are certified by  
18 the Wildlife Habitat Council currently. What we  
19 would like to do is try to get more of our programs  
20 certified with a third-party verification like that.

21 Planning, see, we have reduced the  
22 list down to just a few more items. We're almost  
23 through.

24 Resource management activities, we're  
25 going to be looking at conservation planning, the  
1 lands condition assessments, a couple of tools that <sup>138</sup>  
2 we use there, very good tools. We're going to look  
3 at the resource management unit plan, and then we  
4 also have minerals, a policy that we're thinking  
5 about in terms of the NRP.

6 Conservation planning, this is really  
7 a cool thing. Basically, TVA looks at their lands  
8 and we meet with other agencies and look at their  
9 lands and we try to look and see what can we do  
10 collectively. Can we do things on our lands that  
11 help you meet your mission? Okay. It's that type of  
12 thing.

13 For instance, TWRA in their state --  
14 their document that covers the whole state, their  
15 management plan, they identified that they need more  
16 -- we need more warm season grasses in the State of

17 Tennessee. A lot of them have been converted into  
18 fescue pastures, that type of thing.

19 Well, we have got several lands on TVA  
20 that are suitable for that. So basically we would  
21 work with TWRA to achieve that common goal. We may  
22 have two different missions, but we have common goals  
23 that we can work together to meet. I think that's a  
24 really good thing.

25 An example of that is this, what 139  
1 you're seeing now is footage of gray bats emerging  
2 from a cave and we're using thermal cameras. Now, we  
3 used to have to count those bats by hand. We would  
4 sit there and count them. There goes five. There  
5 goes five and there goes five. We did that for 15  
6 years.

7 So it was a process that everybody  
8 agreed to and they liked and they did it, but when we  
9 got the numbers, the numbers weren't consistent  
10 because you would count bats differently than Anda  
11 would and you would differently than I would.

12 So we tried to use the same counters  
13 every year. It was the same people that counted on  
14 the same day because their population numbers varied  
15 day-to-day. Well, you know, that wasn't very  
16 effective.

17 The gray bat was a species that was  
18 this close to being down listed on the endangered  
19 list because it was doing really well. We protected  
20 all the colonies, the summer colonies out there. The  
21 winter colonies where they hibernate are protected,  
22 too. We were this close and then this threat of



23 white nose syndrome, which I will mention shortly,  
24 which is killing all of these big populations of bats  
25 is moving into Tennessee. It can wipe out that  
1 species easily because they roost in such big numbers <sup>140</sup>  
2 in one or two caves. So there's a potential threat  
3 to wipe them out.

4 In order to better determine what the  
5 population numbers are, the Fish & Wildlife Service  
6 said we need to develop a computerized system that  
7 counts these bats the same way every time, and that's  
8 what that system is.

9 We're one of the many groups, the  
10 Nature Conservancy and others, that are using that  
11 technology. We're testing it for them right now so  
12 that we can, you know, see if it works. So far it  
13 looks really good.

14 So basically what I wanted to convey  
15 here besides that is -- well, it's not going to work,  
16 that screen. We're partnering with our regulators,  
17 and I think that's a good thing to do. Again, we all  
18 have our different missions, but we do have common  
19 goals. Oftentimes we have dwindling budgets that if  
20 we pool our resources together we're able to address  
21 specific issues that we have in common.

22 The lands condition assessments is a  
23 tool, a comprehensive tool. As I understand, you  
24 guys have been exposed to that already, is that true,  
25 I believe in the previous meeting that you guys had.

1 Jason Mitchell was one of the ones <sup>141</sup>  
2 that developed that. It's a very, very good  
3 comprehensive process. It basically has two

4 purposes, to determine the health of a parcel.

5 Do we have the desired conditions

6 there? Is it healthy or is it doing fine?

7 Then it also helps us identify needs

8 that -- you know, activities or actions that we need

9 to do to improve that parcel or to address a specific

10 problem.

11 The assessment has 13 components that

12 are examined. It's very comprehensive. Then we look

13 at things like, you know, boundary parking, T&E

14 cultural resources, are we protecting those on this

15 parcel. It's a very good process. It basically

16 supports TVA's land health indicator.

17 Okay. We're almost through. So

18 that's the comprehensive tool, looking at a specific

19 parcel. Basically, the information goes into a

20 computer into a database. It's really awesome.

21 The next thing is a different tool

22 that's very similar. It's a land stewardship

23 maintenance checklist. This is something we're

24 looking at including in the NRP or addressing in the

25 NRP. It's a tool used for identifying stewardship

1 needs on a group of TVA lands.

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2 Basically, the other process was we

3 will all go out and assess the health of the land

4 together, you know, it's a standardized process.

5 What this tool is, it's a checklist that I can give

6 Wilson and, Wilson, while you're out there at Little

7 Cedar Mountain, if you see anything let me know.

8 Wilson will come back and say, Hill,

9 look here. I walked down this access corridor right

10 here and you're getting vegetation coming up there.  
11 It's not as good anymore. If that's your objective  
12 to maintain that access road, you need to get this  
13 done.

14 Basically, we identify that need. It  
15 comes back and gets put into a database. It's a  
16 systematic way for us to identify those needs so that  
17 we can put them in there and prioritize those needs  
18 versus the others.

19 It's a straightforward tool, but it  
20 allows -- you know, you don't have to be a trained  
21 person to go out there and do that. You guys could  
22 go out there this afternoon to Norris Dam and fill  
23 out one of these things and we can get some feedback  
24 from you guys.

25 Unit plans, this is a process we used  
1 to do on a routine basis. We haven't done one for a <sup>143</sup>  
2 long time. A unit plan is a very specific  
3 prescription of activities that we apply to a  
4 specific tract or groups of tracts of TVA land.  
5 Okay. It's just like a management plan that TVA will  
6 do or the Forest Service will do, that type of thing.

7 Basically, you go to the unit that  
8 you're looking at and you identify, what are the  
9 constraints there, or opportunities as some people  
10 tell me to say? You know, you have got cultural  
11 issues here that we have got to avoid. We have got  
12 threatened and endangered species over here you have  
13 got to avoid.

14 Well, what opportunities do you have  
15 out there to enhance that property to allow people to

16 come there if need be, if that's what your goal is  
17 for that property?

18                   Basically, you're looking at the  
19 property and deciding what can we do here, what is  
20 our desired condition, and the unit plan spells that  
21 out in great detail. That's a process that we're  
22 examining for the NRP.

23                   Basically, all of these processes  
24 we're talking about, we're kicking up these things we  
25 have done on a project-by-project basis and kicking  
1                   them up to a programmatic level, and that is a <sup>144</sup>  
2                   fantastic thing to do because we oftentimes have  
3                   people that this guy in this region will go do this  
4                   thing and this guy will go do a different thing over  
5                   there. They may do the same thing but they won't do  
6                   it the same way.

7                   If we address this stuff at the  
8                   programmatic level, we can send those objectives down  
9                   and have everything done in a systematic manner. I  
10                  think that's real good for the resource. That's one  
11                  of the benefits of the NRP, I think.

12                  Okay. Just a few more to go through.  
13                  Resource management activities, environmental  
14                  education, you will see this kiosk today. It's at  
15                  the weir there at Norris. It's a pretty good one.  
16                  When we're there, after we show you the weir and all  
17                  of that, if you have got time go over there and look  
18                  at that. It tells you in great detail what the weirs  
19                  are all about. It's actually pretty good.

20                  It's actually got some photos of  
21                  here's what it used to look like before we used the

22 weirs and here's what it looks like now. It's really  
23 an awesome thing.

24                   So environmental education, we're  
25 trying to develop, what do we want to do with                   145  
1 environmental education? We used to have an  
2 environmental education center at Land Between the  
3 Lake when we managed that. We transferred that over  
4 to the Forest Service and we don't have that anymore.  
5 It was a good way to interact with the public and  
6 educate them on things.

7                   We work on so many broad spectrum  
8 topics, like wind and energy or we even look at solar  
9 or things of that nature or how we generate  
10 electricity, and we can take those topics and put  
11 them in an environmental center or some other similar  
12 type of situation and educate the people.

13                   People are constantly asking us, how  
14 do you do that and why do you do that. I think a lot  
15 of the feedback we get from people is because we  
16 don't oftentimes take the time to educate them about  
17 why we do certain things. I think that's something  
18 we need to improve.

19                   Habitat enhancement partnerships, I  
20 mean, that pretty much tells you what this is all  
21 about. We are -- we're looking at partnering or  
22 expanding our partnerships with state, federal, and  
23 local groups, and even NGO's, non-governmental  
24 organizations, to enhance wildlife habitat on TVA  
25 lands and their lands. It's a partnership                   146  
1 opportunity.

2                   If you will look at the cave down on

3 the bottom left, that's a gate that we put in that  
4 it's big enough to allow biological resources to move  
5 in and out. It's very robust and strong enough to  
6 protect the cultural resources that are in that pit.  
7 It look a lot to build that because you're building  
8 it over a pit while you're welding all of this stuff  
9 together. It was a really good project.

10                   Okay. Public education and  
11 communication, you will see signs like this. This is  
12 a sign that talks about how we improve dissolved  
13 oxygen in tailwaters above our dams. If you go to  
14 most of our dams, they will have this little item  
15 there so you can learn about it.

16                   We have got to figure out, you know,  
17 is that good enough or do we need to communicate this  
18 on a larger scale because it's very interesting and  
19 it's something that folks may not be aware of.

20                   While we're out there at Norris today,  
21 you're going to see these big tanks that hold the  
22 oxygen that are injected into the forebay area, the  
23 area above the dam. We inject the oxygen into that  
24 water at the bottom of the reservoir as the diagram  
25 shows, because when the water goes through the dam  
1 and comes out it's pulling water from the bottom of  
2 that reservoir and that reservoir is very deep.  
3 There's hardly any oxygen in that water.

4                   So what would happen is that water is  
5 very cold. It would come through and, you know, we  
6 would try to put trout out there to create a trout  
7 fishery. Well, the trout would suffer because there  
8 wasn't enough oxygen in there. So we went through

9 this process of how do we improve the dissolved  
10 oxygen. You're going to see the weir today, that's  
11 one process, but you have also got these oxygen tanks  
12 where we inject oxygen into the forebay.

13 We also can modify how we use the  
14 turbine and allow us to suck air into the water as  
15 it's going through and that oxygenates the water as  
16 well. That process has led to us improving water  
17 quality in over 180 miles of tailwater. It's a very  
18 good process.

19 Again, you know, we don't educate  
20 people about that and tell them those things. We  
21 don't often tell the good story, and we need to  
22 figure out how best to do that during the NRP.

23 This is a similar -- well, actually  
24 it's the subcomponent of that resource stewardship  
25 campaign. You know, it's basically an outreach. How  
148 do we convey this information to folks?

2 This is the weir. It's a weir. It's  
3 not the one we're going to visit, but it's very  
4 similar. The weir basically is a -- you know, you  
5 talked about droughts earlier, Mr. Littlepage, and  
6 you were asking about how a drought resulted in  
7 certain actions or something of that nature.

8 When we had the big droughts our  
9 reservoir system actually didn't suffer as much from  
10 a biological standpoint because we had these weirs in  
11 place and we had these minimum flows. We allowed the  
12 water to come through.

13 Basically, when you turn that dam off  
14 the water stops and that whole area below the dam

15 becomes dry pretty much and nothing could live there.  
16 With this weir in place, it holds enough water back  
17 that it allows enough water to trickle through that  
18 there's a constant flow of water.

19 Because we have that, during the  
20 drought our tailwaters work very good. We have got  
21 very good fishing down below those tailwaters. We  
22 will talk about that out there at Norris Dam today.

23 So basically communication, how do we  
24 communicate to the public? We need to look at that  
25 during the NRP process.

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1 Okay. I am almost there. Forest  
2 management. How are we doing on time?

3 DFO ANDA RAY: You're going to have to  
4 move it or we're not going to be able to eat.

5 MR. HILL HENRY: We're almost there, I  
6 promise. Forest management, TVA lands are  
7 overwhelmingly forested. We used to do a lot of  
8 forestry. We had forest divisions within TVA. We  
9 have progressive management groups, management ideas,  
10 objectives, and goals that changed over the time, but  
11 forestry wasn't one of the things that we focused on  
12 here lately.

13 Forestry can be a benefit. It can  
14 also be a detriment. A lot of folks don't like  
15 forestry. They don't like for trees to be cut down  
16 and that's okay, that's their idea of how a forest  
17 should be.

18 So we need to consider, do we want to  
19 consider forestry practices in the NRP? If we do,  
20 there are benefits to it. It ties in closely with



21 greenhouse gas management, and I will go into that.

22 Greenhouse gas management, our  
23 greenhouse gas folks are trying to figure out how to  
24 address this. This is a very popular topic right  
25 there. How do we get involved in that? We're going  
1 to use the NRP process to try to address that to some<sup>150</sup>  
2 extent.

3 Our greenhouse gas folks are working  
4 with our foresters and our former foresters trying to  
5 figure out, you know, is there a way that we can  
6 manage a forest so that we can use it for carbon  
7 credits?

8 Okay. If you go in and enhance the  
9 forest and enhance the woody growth of that forest  
10 you're able to capture some of that carbon, and  
11 that's something we're entertaining.

12 Okay. Can you back up one slide for  
13 me?

14 Natural areas, 154 natural areas in  
15 the TVA power service area. You see the distribution  
16 there. I'm sorry the dots aren't big enough.  
17 Basically, they're throughout the power service area.  
18 You have been to some of these, I presume, on some of  
19 your earlier trips. They are set aside to protect  
20 resources and provide opportunities for ecological  
21 research and environmental-related recreation.

22 Then the last slide. Whatever we do  
23 when we come up with these activities, these actions,  
24 we have got to be broad enough, okay, to be flexible.  
25 We have got to be able to -- we have emerging issues<sup>151</sup>  
1 that come up all the time, and if our alternatives

2 are not broad enough to capture those something is  
3 going to fall through the cracks.

4                   So the issue we're dealing with is  
5 white nose syndrome. I will tell you guys about this  
6 at Norris. I won't get into it right here. Just  
7 note the map. It was discovered only a couple of  
8 years ago and it was up there in the northeast, and  
9 in the matter of two years it has spread all the way  
10 to Tennessee and it's getting ready to go through  
11 Tennessee as well. It could have major implications  
12 on populations of bats.

13                   Why is that important?

14                   Well, that can have ultimately  
15 operational -- result in operational constraints for  
16 TVA on how we manage our right-of-way corridors and  
17 things like that. You know, you wouldn't think  
18 that's a -- you know, why does this affect TVA? It  
19 could potentially affect TVA. It also affects how  
20 our regulators regulate. Okay. Those regulations  
21 can result in more constraints for us in the future  
22 in our operations.

23                   That's all I want to say. If you have  
24 any questions, we can address a few now or we can go  
25 over and have some lunch or we can talk on the bus  
1 this afternoon or we can talk at Norris if you'd  
2 like.

3                   DFO ANDA RAY: I have one quick  
4 question on greenhouse gas, I assume we're looking at  
5 long -- at hard woods for long-term sequestration and  
6 short rotation widow crops as well?

7                   MR. HILL HENRY: Those are several

8 options that we're examining right now.

9 DFO ANDA RAY: Both of those.

10 MR. HILL HENRY: Right. You're  
11 exactly right. She wanted me to stress that we're  
12 looking at terrestrial aspects of it. There are --  
13 it's a very complicated issue. You can look at  
14 subterranean storage, that type of thing. We're not  
15 going there. We're just looking at the terrestrial  
16 aspects of it.

17 FACILITATOR WILSON TAYLOR: Thank you,  
18 Hill.

19 Are you ready for lunch?

20 CHAIR MR. TOM LITTLEPAGE: I think  
21 we're ready.

22 FACILITATOR WILSON TAYLOR: We will  
23 have lunch over here and we will be back over here at  
24 1:00, restart at 1:00.

25 (Lunch recess.)

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1 FACILITATOR WILSON TAYLOR: If we  
2 could go ahead and grab our seats, we will go ahead  
3 and get started back. Our next speaker this  
4 afternoon is Erin Pritchard.

5 MS. ERIN PRITCHARD: First before I  
6 get started, I just want to make sure you guys can  
7 hear me because I'm kind of soft spoken and I don't  
8 like talking into microphones like this. So if I  
9 start to fade off, just wave your hand.

10 My name is Erin Prichard. I am an  
11 archeological specialist at TVA. I want to thank you  
12 for allowing me to talk to you today about TVA's  
13 management of their cultural resources.

14 I did that right. Management of TVA's  
15 cultural resources is going to be addressed under the  
16 natural resource management volume of the NRP. And  
17 cultural resources, as some of you guys know because  
18 I think you guys went out in the field last time and  
19 talked about some archeological sites, they include  
20 archeological sites. They include historic  
21 structures and buildings. Structures could be like  
22 TVA dams.

23 We're going to see Norris Dam this  
24 afternoon. That's TVA's first dam and very historic,  
25 and Patty Zell is going to talk to you about that  
1 later. 154

2 It can include historic sites, such as  
3 like battlefields and places where historic events  
4 occurred, as well as historic items. These things  
5 are also collectively referred to as historic  
6 properties. So I am going to use those two words  
7 interchangeably throughout this presentation, but  
8 just so you know they mean the same thing. Historic  
9 properties is the word that's used in a lot of the  
10 legislation.

11 As a federal agency, TVA is obligated  
12 to comply with several historic preservation laws  
13 that have been written for the purpose of protecting  
14 and managing historic properties on federal lands.  
15 Since a majority of the cultural resource activities  
16 that occur and are going to be included in this NRP  
17 are in response to these laws, I have organized my  
18 presentation by the associated laws and executive  
19 orders and their activities.

20                   Before you get worried that I am just  
21 going to talk about law the whole time, there should  
22 be a written detailed item in your notebook that goes  
23 into more detail about those laws so I don't have to  
24 bore you too much with my presentation. Also, if you  
25 have any questions when I am through with this, I  
1 will be available on the bus trip as well. 155

2                   The first law I wanted to discuss with  
3 you is the National Historic Preservation Act. It  
4 establishes historic preservation as a national  
5 policy and directs the federal government to provide  
6 leadership in preserving the historic and cultural  
7 environment of the nation.

8                   It also establishes the National  
9 Register of Historic Places, which is as most of  
10 you -- some of you are probably familiar with that.  
11 It's a register of historic properties that are  
12 considered significant to our nation's heritage.

13                   Under NHPA federal agencies like TVA  
14 are directed to maintain historic properties in a way  
15 that considers the preservation of their historic  
16 archeological, architectural, and cultural values.  
17 There are two key -- I need an extra hand. There are  
18 two components of the Act that are the most important  
19 when it comes to TVA managing its cultural resources,  
20 and those are Section 106 and Section 110.

21                   Section 106 requires federal agencies  
22 to consider the effects that its action and  
23 undertakings will have on historic properties.  
24 Anything from a boat dock permit, the 26(a) boat dock  
25 permit to TVA building a brand-new nuclear plant, TVA

1 has to consider the effects that all of those actions  
2 have to have on historic properties. That's covered  
3 under Section 106.

4               Section 110 sets out historic  
5 preservation responsibilities for the agencies to  
6 ensure that historic preservation is embedded into  
7 agency programs. This means that TVA's responsible  
8 for identifying all the historic properties on their  
9 properties, protecting those, and nominating them to  
10 the national register and using them and managing  
11 them in a way that serves the interest of the  
12 resource as well as the interest of the public.

13              And the way I have broken this out for  
14 activities, I am going to talk about the activities  
15 that we're doing now and the activities that we are  
16 considering under the NRP.

17              So for Section 106 what we do now is  
18 we review all TVA projects that could have a  
19 potential to impact certain properties. All of those  
20 come through our office. We review them. We go  
21 through the process that's outlined in the law.

22              We are also considering additional  
23 activities not necessarily required by 106 but  
24 activities that would enhance our 106 consultation  
25 process to make us more efficient and better at what

1 we do.

2              The first one is an improved process  
3 for our implementation of all of our agreement  
4 documents. TVA has numerous undertakings each year  
5 and a lot of those result in these agreement  
6 documents, which is how we mitigate effect to

7 historic properties. At any given time TVA could  
8 have 10 or 20 of these things going on at once. They  
9 have stipulations that make us have to do certain  
10 things in a certain time frame for up to as many as  
11 20 years.

12               So when we have got all of these  
13 things going on, with everything else that's going on  
14 if we had a better system of managing these agreement  
15 documents then we could ensure that nothing falls  
16 through the cracks because, you know, occasionally  
17 things do fall through the cracks when you get all  
18 wrapped up in the busy schedules that we all have.

19               The next is emergency procedures for  
20 Section 106 compliance. This is something that's  
21 recommended in the law for agencies to have. It's  
22 where we would have procedures in place where if  
23 something were to happen where life or land was  
24 harmed or if it's in danger or threatened or if a  
25 disaster were declared that we would have a process  
1 in place for how to deal with historic properties. 158  
2 Just because an emergency occurs, if it impacts a  
3 historic site we still have to deal with it and do  
4 something about it.

5               Kingston is a good example of where  
6 emergency procedures would have been good because  
7 there were some sites that were impacted and we would  
8 have been able to quickly be able to deal with that  
9 and make sure we're in compliance when that occurs.

10              The next one is to develop a database  
11 for our Section 106 reviews. We review an average of  
12 1,500 projects every year. Having a database that

13 kind of logs all of those projects and what the  
14 findings were, whether or not a field review was  
15 done, all of these types of activities, would help us  
16 manage our compliance process better because we would  
17 know where we have been which would make us better  
18 able to see where we need to go.

19 I am going to talk about databases in  
20 a minute. So hold on to that thought.

21 The next one would be to develop  
22 programmatic agreements to improve the efficiency of  
23 our Section 106 process. With the 1,500 projects  
24 that we look at, a great number of those, probably a  
25 thousand of them, are small 26(a) boat dock permits  
1 and small impacts. 159

2 An agreement document would be done  
3 with the State Historic Preservation officers and the  
4 tribes that would kind of set out which one of those  
5 projects TVA is going to do consultation on, you  
6 know, what's the consultation process going to be  
7 like for these types of projects. This is just  
8 something, again, that if you spend a little more  
9 time at the front end to make your job a little more  
10 efficient. So those are the activities that we're  
11 looking at under Section 106.

12 The next section, Section 110, the  
13 things that we're doing now, TVA has a small budget  
14 each year devoted to the identification of  
15 archeological sites that are on our property. In the  
16 last ten years TVA has spent a significant amount of  
17 money on the protection of archeological sites  
18 through riprap stabilization and through gating of



19 sensitive caves.

20                   You saw a picture of some caves that  
21 were in Hill's presentation, the pit cave, that was  
22 one of the caves that we gated for the protection of  
23 archeological resources.

24                   We also manage a large number of  
25 historic photos, historic TVA photos, and currently  
1 we're in the process of digitizing those for                   160  
2 long-term preservation.

3                   Excuse me.

4                   We maintain a cemetery database.  
5 Prior to the construction of TVA's reservoirs many  
6 cemeteries were removed and are documented on our  
7 lands that were affected by these reservoirs, and we  
8 maintain a database of these cemeteries and the ones  
9 that were removed.

10                   Members of the public are coming to  
11 TVA quite often to find out, you know, where their  
12 ancestors were buried, where they are now, that kind  
13 of stuff. So that's a thing that our historian keeps  
14 track of.

15                   Those are the activities that we're  
16 doing now. There's quite a few activities that are  
17 proposed as well in addition to that.

18                   The next one, TVA manages thousands of  
19 significant and historic properties. When I say  
20 thousands, I mean it. I'm not exaggerating. We have  
21 over 11,000 recorded archeological sites. Those are  
22 just archeological sites. We have numerous historic  
23 structures and dams.

24                   One of the activities would be to

25 start nominating these properties to the national  
1 register. We do have some historic properties on the 161  
2 national register, but TVA has not actively nominated  
3 any of those properties itself. So TVA would be  
4 actually going through the list of properties and  
5 finding ones that we think are important to TVA and  
6 nominating those to the national register.

7           The next one is the maintenance of the  
8 TVA historic collection. Over the years or  
9 throughout its history, TVA acquired numerous  
10 historic items. These are collectively referred to  
11 as the historic -- TVA historic collection. They are  
12 located -- a lot of them are located in the corporate  
13 building. There's some right outside this building  
14 you guys may be familiar with.

15           The NRP may consider -- currently  
16 these are being managed by our facilities management  
17 group, but these are historic items under the  
18 National Historic Preservation Act and are also  
19 considered eligible for the national register.

20           So one of the options is to take those  
21 underneath our management and manage them with the  
22 rest of the historic properties. So a budget would  
23 be set up for that and we would work on the  
24 maintenance and preservation and use of those items.  
25 We're using them now in TVA buildings, and we could 162  
1 possibly use them elsewhere.

2           The database, as I mentioned  
3 previously, TVA does not currently have a database  
4 that has all of its historic properties in one place.  
5 They are scattered about in smaller databases. We

6 have paper copies of maps. We have files and files  
7 and files of historic structures. We have all sorts  
8 of data, but we don't have a database, a  
9 comprehensive database that puts it all together.

10               So by developing a comprehensive  
11 database that's done GIS, we would better be able to  
12 manage our resources. The different alternatives we  
13 may have under the NRP may look at various levels of  
14 capabilities of that database.

15               For those of you guys who know about  
16 GIS, you can do a lot with GIS. We can incorporate  
17 all of our site data. We can incorporate the land  
18 that we've surveyed, where we haven't surveyed,  
19 what's the potential for there to be something in the  
20 areas that we haven't surveyed, where have we  
21 stabilized sites, what sites need to be protected,  
22 what sites are being looted, all that type of stuff  
23 can be incorporated into one place so that we can  
24 better manage it. Again, that would be a lot of  
25 money at the beginning and a lot more efficiency in  
163  
1 the long run.

2               TVA may also consider doing additional  
3 inventory of historic sites and structures. We don't  
4 currently have a program in place where we look at  
5 structures and buildings and stuff and historic sites  
6 on TVA land and the surrounding areas, but we do have  
7 some data.

8               So this would include kind of  
9 compiling all of the data that we have on structures  
10 as well as doing surveys to identify structures that  
11 are on our property and within the view shed of our

12 property and could be impacted by the things that we  
13 do, our activities.

14                   The next one, improved agency planning  
15 to incorporate historic properties, you guys are  
16 aware that TVA is going through some reorganization.  
17 We did reorganize to where our compliance group is  
18 structured to where in the future we should be on the  
19 beginning side of TVA projects so that we're better  
20 incorporating cultural resource management into  
21 project planning rather than waiting for a project to  
22 be planned and then dealing with the effects that the  
23 resources are going to have. That's something that's  
24 hopefully underway with our new organizational  
25 structure.

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1                   That sort of is related to the  
2 development of procedures, processes and procedures.  
3 If we have a policy and procedure in place that  
4 guided what we did, then we would be able to do our  
5 jobs more consistently and we do it more efficiently.

6                   Consistency has been an issue in the  
7 last few years. TVA has been criticized for not  
8 looking at things the same way with different people.  
9 So if we had policy in place and procedures in place,  
10 we would have something to go back to that would say  
11 this is our policy, this is how we do things, this is  
12 how we manage our resource, and it would be very good  
13 for the management of our resources.

14                   The other opportunity that we may have  
15 is to have a corporate history program. TVA has a  
16 very rich history and if -- by having a corporate  
17 history program we could kind of preserve that

18 history by having an oral history program where we go  
19 back and we interview people who know about the  
20 significant events that occurred in TVA's history.

21 We could also have an ongoing TVA  
22 timeline. We used to have one, but it's not been  
23 updated. We could have it updated every year so that  
24 we are talking about the things that are going on in  
25 TVA and the surrounding world.

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1 We can also do historic history public  
2 outreach. We'd go out and talk to the communities  
3 about TVA's history and the good things that we have  
4 done.

5 Related to that, I am going to skip  
6 over to the TVA history and archeological museum and  
7 talk about TVA in the past did consider building a  
8 TVA museum, a history museum, and we are looking at  
9 considering revisiting this idea of having a TVA  
10 history museum as well as maybe adding an  
11 archeological component to it because we have  
12 enormous amounts of archeological collections and  
13 historic collections and historic items of the  
14 history of TVA.

15 We have responsibilities under ARPA,  
16 which is the law I am going to talk about next, about  
17 doing public outreach for archeology. We can do all  
18 of this type of stuff and we'd seek partners for the  
19 development of the museum and the maintenance of the  
20 museum so that we can get some help and it's not just  
21 a burden to TVA.

22 The last one is the on-line  
23 interactive cemetery database. I mentioned the

24 database of cemeteries. Something that I think the  
25 public would really appreciate is if they could go to  
1 TVA's web site and click on our cemetery database and  
2 click on a cemetery and it pops up a map showing  
3 exactly where that cemetery is, where it was located,  
4 where it is now, maybe photos of it. I think this  
5 would be a great benefit to the public and would help  
6 us out, maybe not receiving as many inquiries about  
7 our cemetery database.

8 Those are the activities that I have  
9 included in the Section 110 part.

10 The next law that I want to talk to  
11 you about is the Archeological Resource Protection  
12 Act, and it was enacted to protect archeological  
13 resources on federal lands for the future and for the  
14 benefit of the American people.

15 It requires us to grant permits for  
16 archeological excavation and it prohibits the  
17 unpermitted removal of resources and excavation of  
18 resources on our property, and it establishes both  
19 civil and criminal penalties for that prohibited  
20 activity.

21 What we are doing now under ARPA, we  
22 do permit archeological work on TVA lands.  
23 Technically anybody can submit an ARPA permit  
24 request, but you have to meet the standards. You  
25 have to be an archeologist for one. You have to have  
1 a proposal that is in TVA's benefit and in the  
2 resource's benefit.

3 We also do a lot of permits for  
4 Section 106 related activities, such as TDOT wants to

5 build a road and they are crossing TVA land, they  
6 have got to have a permit before they do an  
7 archeological survey and before we can build that  
8 bridge.

9                   So we also have a very good growing  
10 criminal violation enforcement program under ARPA.  
11 We have hired in 2005 two dedicated TVA police  
12 officers to focus just on ARPA. They work with the  
13 rest of the TVA police officers, as well as state  
14 agencies, to enforce ARPA on our lands.

15                   We currently have five cases in  
16 progress that have occurred in the last year, and  
17 three of them I believe are right now sitting on the  
18 U.S. Attorney's desk in Huntsville awaiting their  
19 approval to go forward. So it's very exciting.

20                   We have a big problem with looting on  
21 TVA lands. We have a great need to go out there and  
22 either enforce it with the law or educate these folks  
23 for the need to protect these resources, which leads  
24 to the public outreach program which I think you guys  
25 may have talked about before.

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1                   Thousand Eyes, it's a mechanism for  
2 TVA to go out and work with the public. We're  
3 required under ARPA to go out and share this  
4 information with the public, the importance of  
5 protecting these resources, and Thousand Eyes allows  
6 us to do that.

7                   Also under ARPA, which was also under  
8 Section 110, kind of -- a lot of the legal stuff  
9 overlaps, but it's archeological site protection and  
10 archeological survey of TVA lands. We have, again,

11 an annual budget that goes out and does that every  
12 year. So it's covered under two laws.

13 The activities that we are looking to  
14 consider in the NRP under ARPA, increase funding for  
15 both criminal and civil enforcement. We do have a  
16 budget for criminal enforcement, but we don't have a  
17 budget for civil.

18 One option would be to increase that  
19 funding and focus more on the law enforcement side of  
20 ARPA, you know, going out and catching these folks.  
21 So increasing the funding at various levels may be  
22 considered in different alternatives.

23 Annual budget for shoreline  
24 stabilization, as I said, we've spent thousands of  
25 dollars on stabilization in the last few years. That  
1 budget has decreased in recent years, but we could<sup>169</sup>  
2 set goals -- long-term goals for the number of sites  
3 that we want to protect each year in the coming  
4 years. The number of sites that we set depends on,  
5 you know, whether or not we think site stabilization  
6 is what we should be focusing our funding on.

7 An annual budget for Thousand Eyes, we  
8 don't currently have a budget for Thousand Eyes, but  
9 we usually do our Thousand Eyes programs in  
10 association with other activities that are going on,  
11 whether it's an ARPA case that's going on or a  
12 Section 106 activity where we're going out and we're  
13 talking to the community because we're lowering the  
14 reservoirs and it's going to expose sites. So we go  
15 out and talk to the community about archeology and  
16 remind them that it's illegal to go out there and



17 impact the archeology.

18                   Having an annual budget for Thousand  
19 Eyes would allow us to have established programs each  
20 year with school groups or other Boy Scouts, adult  
21 groups, lake watch, whoever. We can establish  
22 partnerships with universities or tribes or other  
23 agencies to go out.

24                   One of the things that I would like to  
25 see would be paying graduate students to come out and  
1 talk about their research to the community because <sup>170</sup>  
2 archeologists don't always have ways of sharing their  
3 research with the public. And most of their stuff is  
4 published in an academic format and so people don't  
5 see it. So by doing this it -- and graduate students  
6 don't have a lot of money.

7                   So if we can fund them to go out and  
8 talk about their research that's going on in TVA  
9 areas, then it would help the public see the  
10 importance of archeology and why their research is  
11 being done.

12                   Also, the ultimate goal of Thousand  
13 Eyes is to develop a monitoring program. This is  
14 happened out west a lot. That would be where TVA has  
15 volunteers from the community who have a joint  
16 interest in protecting these resources. They sign  
17 confidentiality agreements with TVA. They go out and  
18 they have locations that they keep an eye on  
19 regularly for us. They know where the sites are and  
20 they go out and monitor them and they contact TVA if  
21 something is going on out there. So that's an  
22 ultimate goal of Thousand Eyes in the long run.

23                   Another thing that would be helpful is  
24   if we have additional full-time ARPA officers. We  
25   have two, and that is very impressive. Apparently,  
1   TVA is the only agency that has two full-time devoted<sup>171</sup>  
2   ARPA officers. Most -- a lot of the other agencies  
3   have rangers and they do all resource areas, but TVA  
4   has two ARPA officers that cover 293,000 acres. So  
5   it's a big area and lots of cases and it gets really  
6   busy. So it would be helpful if we could have  
7   additional officers to support that effort.

8                   The next thing would be to have a  
9   full-time ARPA specialist. We have, like I said,  
10   five cases that are ongoing right now. We focus a  
11   lot of our efforts sometimes and we get bogged down  
12   in the compliance aspect, the Section 106 reviews,  
13   you know, we get pulled in a bunch of different  
14   directions because there's a lot going on at TVA.

15                  By establishing an ARPA expert and  
16   that's what they focused on, they would be able to  
17   make sure that those ARPA cases are being covered and  
18   that we respond to those ARPA cases. When the call  
19   comes in from the police that they are out there  
20   on-site because that's really important when you have  
21   a criminal investigation and that all of these cases  
22   are being completed in a timely manner because right  
23   now it's taking a long time to get those things  
24   completed.

25                  In addition, they would be able to do<sup>172</sup>  
1   -- they would oversee both criminal and civil cases.  
2   They would also oversee the Thousand Eyes program,  
3   which is another aspect of ARPA.

4                   We also have on here increased funding  
5   for archeological survey, again, that falls under  
6   ARPA and 110. We have 11,000 recorded sites. We're  
7   not really sure because we don't have a database of  
8   how much we have surveyed of TVA lands. So we do  
9   have a lot more sites out there, and to better manage  
10  our lands we need to know what's out there. So the  
11  more money we have for inventory, the better we can  
12  manage those resources.

13                   A formal monitoring program would be  
14   very, very, very helpful to evaluate site conditions  
15   and violations under ARPA. Monitoring is something  
16   that's covered under ARPA. It would be beneficial if  
17   we were able to go out there every year and identify  
18   those sites that are, you know, being hit or have the  
19   potential to be hit and monitor the status of those  
20   sites so that we know where to direct the TVA police  
21   to go and where we know we need to stabilize the site  
22   because somebody is digging into it and where we know  
23   what sites that we need to do surveillance on to  
24   catch the individuals who are going into it.

25 We can also monitor sites for their  
173  
1 conditions. When it comes to erosion, you know,  
2 there are a lot of sites that are eroding and we can  
3 kind of gauge that and see which ones are most at  
4 risk and keep an eye on that each year to find out  
5 which ones that we need to focus our efforts on.

6                               The last one, codified regulations to  
7     supplement ARPA. Codified regulations is not  
8     something TVA has to have, but a lot of other  
9     agencies have them. Where we have our own rules and

10 our own laws of how we manage our lands, it's  
11 something that would benefit archeology and historic  
12 properties but it's also something that would benefit  
13 all of those resources. It would be a way for us to  
14 enforce people who are going out and doing permanent  
15 camping on our lands who are also impacting  
16 archeological sites and TVA police would have a way  
17 to enforce that and site them on-site. And TVA  
18 police are also in support of that.

19 One thing ARPA does not have any sort  
20 of way to prosecute you on is the surface collection  
21 of arrowheads. The people who loot on our property  
22 like to point that out to you as soon you come up to  
23 them, but it's still theft of government property and  
24 TVA can still enforce -- if we had our own codified  
25 regulations we could prohibit the removal of any  
1 historic items from our property. 174

2 If you think about it, people don't go  
3 into national parks and pick up stuff. Why? Because  
4 it's illegal to pick up anything in a national park  
5 because they have their own codified regulations, and  
6 if TVA had those we would be able to better manage these  
7 resources as well.

8 Can we go back a slide? I knew I  
9 would do that once.

10 The next law is the Native American  
11 Protection and Repatriation Act, and that provides  
12 for the protection of Native American cultural items  
13 and establishes a process for the unlawful removal of  
14 human remains, funerary objects, sacred objects, and  
15 objects of cultural patrimony, which are all defined

16 under the Act, from sites on federal lands.

17           It basically regulates when you can  
18 remove human remains from federal lands, and this is  
19 only something that occurs in an archeological  
20 investigation or if they're inadvertently discovered,  
21 not something that we randomly allow, just to point  
22 that out. NAGPRA addresses the recovery, treatment,  
23 repatriation of these items by federal agencies and  
24 museums.

25           What we're doing now, we currently  
1 have a NAGPRA inventory. TVA was started in 1933. 175  
2 Before a lot of the dams were built we did a lot of  
3 archeological investigation back in the '30s and the  
4 '40s. From that we have a huge inventory of NAGPRA  
5 items that are being housed at museums.

6           Most of them are at the University of  
7 Alabama, University of Tennessee, and we keep an  
8 inventory of those and are trying to continually  
9 update that so that we can identify cultural  
10 affiliation of those remains and is the ultimate goal  
11 of NAGPRA.

12           A part of that that we also do is  
13 consult with federally recognized tribes that may be  
14 culturally affiliated with these NAGPRA items. We  
15 meet with them every few years.

16           We're also in the process of  
17 completing our notices of inventory completion, and  
18 what that means is we're completing our inventories  
19 where we have the cultural affiliation and we're  
20 publishing that so that people know what we have  
21 found and so that we can go on to the next step,

22 which is repatriation of the cultural affiliated  
23 NAGPRA items.

24 Any item that is affiliated or been  
25 identified to be affiliated with an existing tribe,  
1 such as the Cherokees or the Cree or the Choctaws, 176  
2 should be repatriated or it's being repatriated under  
3 NAGPRA to the appropriate culturally affiliated  
4 tribe. Those are the ones that were acquired prior  
5 to 1990. The ones post 1990, they are all  
6 repatriated.

7 The next one would be to assist tribes  
8 in receiving grants for cultural affiliation studies.  
9 There are numerous opportunities for tribal  
10 governments to get grants from the government, and  
11 TVA can assist those tribes in getting those grants  
12 so that they can do their own research so that they  
13 can make claims on some of these collections that we  
14 have.

15 The last one is more frequent  
16 consultation meetings with the tribes. We currently  
17 meet with them -- we have formal consultation  
18 meetings once every five years. So we need to meet  
19 more often than that. We have informal consultation  
20 meetings or phone calls, you know, obviously more  
21 frequently than that, but we bring them all together  
22 in one place every five years.

23 The next one is an executive  
24 memorandum entitled Government-to-Government  
25 Relationships with Native American Tribal 177  
1 governments, and it recognizes the unique status of  
2 federally recognized tribes as sovereign nations and

3 ensures that agencies such as TVA are recognizing  
4 that government-to-government relationship and that  
5 we respect their rights to self government. What  
6 that means to us is that when we consult with them  
7 it's on a government-to-government relationship.  
8 It's like the United States talking to the Choctaw  
9 nation.

10               What we have done for that is we have  
11 established a Native American liaison, that's Patty  
12 Zell, and she's going to be talking to you guys  
13 later. She serves as an ambassador for TVA to talk  
14 to these tribal governments.

15               Executive Order 13175 is on  
16 consultation with tribal governments. It basically  
17 tells federal agencies that they need to have  
18 meaningful consultations with tribes and strengthen  
19 that government-to-government relationship that we  
20 have with tribal governments.

21               And again, the tribal liaison assists  
22 with that. We have established that there's numerous  
23 little executive orders that we're supposed to do  
24 with tribal consultation. We do conduct formal  
25 consultations with the tribes. We have our formal  
1 meetings every five years. 178

2               Every project that potentially impacts  
3 sites that may be significant to tribes, we send them  
4 formal consultation letters. Sometimes we have  
5 on-site meetings when there's a project that's going  
6 to impact resources that are extremely sensitive to  
7 tribal governments. We have a lot of telecoms where  
8 we go over projects with them and let them know

9 what's going on. If something is being considered,  
10 again, more frequent consultation meetings.

11 Should we be meeting with them more?

12 That's something we're going to need to work out with  
13 the tribes when we consult on the NRP.

14 I think this is the last one if I  
15 haven't bored you too much. That is Executive Order  
16 13287, which is Preserve America. It establishes  
17 federal policy for preserving America's history by  
18 advancing protection, enhancement, and use of  
19 historic properties managed by the federal  
20 government.

21 It encourages governments to form  
22 partnerships with other entities outside to use  
23 historic properties in a way that benefits economic  
24 development and other public benefits. What that  
25 means is we have all of these resources, find ways  
1 that we can work with local governments or 179  
2 communities or other people to use those resources in  
3 a way that doesn't impact the resource but benefits  
4 the resource and also benefits the public.

5 An example of that would be doing  
6 interpretation of sites that are -- we have been  
7 talking about or throwing out an idea of doing public  
8 outreach with some rock climbers that are climbing  
9 Painted Bluff down in North Alabama and inadvertently  
10 impacting rock art while they're doing it, and maybe  
11 getting together with those guys and doing some  
12 interpretive efforts down there to talk about the  
13 rock art so that they are learning about rock art but  
14 they are also -- we are also promoting the resources



15 as being a good thing.

16               It's not a secret that a bluff that's  
17 called Painted Bluff has rock art on it. So it's not  
18 like something that we need to hide. So by working  
19 with other folks to protect the resources but also to  
20 promote the resources in a good positive way, that's  
21 essentially the intent.

22               Also, this kind of goes back to  
23 Section 110 of the National Historic Preservation  
24 Act, and its goal is to sort of help agencies improve  
25 their Section 110 program and help them improve the  
1 management of the resources. The agencies are to <sup>180</sup>  
2 provide reports on that progress every three years  
3 because it's pretty much recognized that, you know,  
4 TVA is not the only agency that doesn't have tons and  
5 tons and tons and tons of money to just go out and do  
6 stuff with archeology and cultural resources. So  
7 it's how can agencies better manage their resources  
8 with the funds that they have?

9               What we're doing now, we established a  
10 senior policy official, which is a requirement under  
11 the executive order, and that is Anda Ray who is not  
12 in here. We are currently working on partnerships  
13 for the adaptive reuse of our historic buildings in  
14 the Muscle Shoals reservation.

15               We have numerous buildings down there  
16 that are all old and TVA is considering disposing of  
17 these properties, but in the meantime we're also  
18 trying to find ways that we can work with the local  
19 governments down there to find new uses for those  
20 buildings so that they don't have to be torn down,

21 and that's a really good thing that TVA has been  
22 doing.

23 Additional activities that are being  
24 considered, we would like to assess and address TVA's  
25 Section 110 needs, find out what our gaps are, what  
1 things that we need to be focusing more on as far as <sup>181</sup>  
2 our 110 inventories and the management of our  
3 historic properties and identify those gaps and come  
4 up with a plan for how we can improve the management  
5 of those resources.

6 We also would like to seek more  
7 partners for heritage tourism. We're hoping to seek  
8 internal partners as well as external partners to  
9 work on ways that we can use our historic properties  
10 in a way that benefits the public more because the  
11 more the public gets to use these resources and see  
12 these resources they appreciate them more and they  
13 understand why we want to protect them. That's  
14 really important.

15 The other thing and the last thing  
16 would be to come up with an inventory of all the  
17 historic properties that we own, and this could be a  
18 part of our database that I keep talking about where  
19 they would be suitable for this type of thing, keep a  
20 running log of the sites that we have, you know,  
21 whether they be buildings, whether they be  
22 archeological sites, whether they be rock art sites,  
23 things that we think would be good candidates for  
24 this type of activity so that when a community comes  
25 to us or we have a little extra money one year we can  
1 get together and maybe come up with some sort of way <sup>182</sup>

2 to use that resource in this way.

3                   So, in summary, a majority of the  
4 activities and the cultural resource management fall  
5 under two laws, and that's ARPA and the National  
6 Historic Preservation Act. So what I would like to  
7 see from you guys is let us know which one -- which  
8 of these activities do you recommend as being  
9 priorities for TVA in the management of their  
10 properties. How do you think we can be better  
11 stewards of these resources? And also, are there any  
12 activities that I didn't talk about that are related  
13 to historic properties or any ideas you guys may have  
14 on how we can manage these resources better.

15                   Thank you.

16                   FACILITATOR WILSON TAYLOR: Thank you.

17                   CHAIR MR. TOM LITTLEPAGE: Any  
18 questions for Erin?

19                   I have a couple. One of them is you  
20 mentioned early on that on the national register TVA  
21 doesn't submit sites or properties?

22                   MS. ERIN PRITCHARD: No.

23                   CHAIR MR. TOM LITTLEPAGE: Who does  
24 that?

25                   MS. ERIN PRITCHARD: We approve that.

1                   CHAIR MR. TOM LITTLEPAGE: Is it the <sup>183</sup>  
2 state? Huh?

3                   MS. ERIN PRITCHARD: It depends. We  
4 have had nominations from various groups across  
5 the -- you know, universities have submitted some.  
6 We had one come in from -- I don't know if it was  
7 from the State of Alabama for a building down on

8 Wheeler, a historic building that we have down there,  
9 the State is nominating it to the national register.

10 We've had -- there's another -- I just  
11 got a phone call the other day for a building that's  
12 on Fort Loudoun that's on our property that somebody  
13 wants to nominate, and that was from the national  
14 office. I am not sure who wants to nominate that  
15 one. It's historic groups that are interested in the  
16 preservation of resources.

17 CHAIR MR. TOM LITTLEPAGE: These are  
18 properties on TVA land?

19 MS. ERIN PRITCHARD: Yes.

20 CHAIR MR. TOM LITTLEPAGE: So once  
21 they're accepted or put on this national register,  
22 then TVA incurs the burden of having to maintain them  
23 in accordance with the requirements?

24 MS. ERIN PRITCHARD: We actually  
25 maintain the burden of having to protect those  
1 184  
anyway. Putting them on the register does not make  
2 any difference.

3 CHAIR MR. TOM LITTLEPAGE: Oh, it  
4 doesn't create any additional obligations or  
5 anything?

6 MS. ERIN PRITCHARD: No.

7 CHAIR MR. TOM LITTLEPAGE: Okay.

8 MS. ERIN PRITCHARD: No. If a site is  
9 considered eligible for the national register, it is  
10 managed in the same way, regardless if it's on the  
11 register.

12 CHAIR MR. TOM LITTLEPAGE: Okay.

13 MS. ERIN PRITCHARD: It does -- you

14 know, it kind of promotes it with the community, you  
15 know, kind of gives the community the opportunity to  
16 learn about. It's not -- it does not make it any  
17 more protected and it does not make it any more  
18 expensive.

19 CHAIR MR. TOM LITTLEPAGE: Okay. And  
20 then you mentioned something about, you know, looking  
21 at the needs for more archeological expertise out  
22 there or having more eyes on the 300,000 acres you  
23 have to protect, is there a program within TVA for  
24 the internal staff so that as the watershed teams are  
25 out, for example, they can begin to be educated on  
1 how to recognize either new cultural resources or 185  
2 somebody appears to be vandalizing something? So is  
3 that sort of an extension of --

4 MS. ERIN PRITCHARD: They do have  
5 training when they come in as new employees to learn  
6 what archeological sites are, what historic  
7 properties are. A lot of times, you know, it depends  
8 on the individuals of how active they are about that.

9 We do have some watershed team people  
10 who are very active in contacting us when they know  
11 of ARPA violations that are going on and when they  
12 have found something.

13 The program is probably not as strong  
14 as it could be, but we do have something in place  
15 that does try to educate these people because when  
16 they go out to review stuff before we permit a dock  
17 and when they go do a field inspection, you know,  
18 there's a chance that they could see something there  
19 and let us know they see something, you know, they

20 saw a bunch of flakes on the water or I saw a brick  
21 wall. A lot of times they do let us know that.

22 CHAIR MR. TOM LITTLEPAGE: So you have  
23 mentioned several times in terms of the inadequacy of  
24 the database information, is that something that's on  
25 a map or are there sites out there where they know  
1 where they are? 186

2 MS. ERIN PRITCHARD: No.

3 CHAIR MR. TOM LITTLEPAGE: Is that  
4 something that's readily available internally?

5 MS. ERIN PRITCHARD: No. That  
6 information is protected by ARPA. It's not for  
7 public exposure.

8 CHAIR MR. TOM LITTLEPAGE: I'm not  
9 talking about public, I'm talking about internal  
10 staff.

11 MS. ERIN PRITCHARD: I don't know that  
12 there would be a reason for people to have that data.  
13 You know, if they see something going on and they see  
14 somebody digging into a site, it doesn't matter if  
15 there's a dot on a map, they need to call the TVA  
16 police.

17 The problem is, you know, the more  
18 that information is available to people, the more  
19 chances of it leaking out are.

20 CHAIR MR. TOM LITTLEPAGE: Okay.

21 FACILITATOR WILSON TAYLOR: Kelly.

22 DR. KELLY TILLER: Just to follow up  
23 on Tom's question. How involved is the process of  
24 nominating something to the Historical National  
25 Register?

1 MS. ERIN PRITCHARD: It depends on the  
2 resource. A lot of the resources that we have we  
3 have data for, and it would be just taking all of  
4 this information and compiling it into the forms that  
5 the national register people is -- there's a national  
6 group that oversees those and then they are overseen  
7 on a state level.

8 There's a process. There's forms.  
9 There's a particular way they like the sites mapped  
10 on a map, on a piece of paper and in a format. For a  
11 lot of these sites we have the information that we  
12 would need for the nomination, we just -- it's just a  
13 matter of compiling that information into a form or  
14 format that's required by them, by the national  
15 register folks.

16 CHAIR MR. TOM LITTLEPAGE: Any other  
17 questions?

18 Thank you, Erin.

19 FACILITATOR WILSON TAYLOR: Thanks,  
20 Erin. I think we're ready for the tour.

21 CHAIR MR. TOM LITTLEPAGE:

22 MS. BETH KEEL: We're ready if we're  
23 done with the presentations. If you'd like to take a  
24 break before we get -- the bus is right out there.  
25 We're going to go up to Norris. We will be back --

1 we're probably targeting around 4:30. Commissioner  
2 Fyke needs to get back just a smidgen earlier.

3 Please take a break here. It's about  
4 a 45-minute drive up there and then we will be at the  
5 dam. There will be a facilities break at some point  
6 in the tour. Feel free to leave your notes and books

7     here unless you want them tonight. We will be back.

8     We will come back to the hotel.

9                             END OF DAY ONE

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